MILITARY SECRETS XX
CENTURIES

A. ORLOV

SECRET BATTLE SUPERPOWER

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FROM THE AUTHOR

"Cold War" - this is how the historical period of the development of civilization, covering almost half a century, began to be called with the light hand of the American journalist Walter Lippman. The victors of fascism in World War II split into two opposing camps: the socialist states led by the Soviet Union and the capitalist countries led by the United States of America. Of course, the ideological confrontation between the two socio-political systems arose even earlier, immediately after the October Revolution in Russia. However, during the joint battles against the fascist-militarist bloc, the allies in the anti-Hitler coalition seemed to find a common language and friendly resolved the problems that arose in the course of the struggle against the common enemy. But no, as soon as the thunder of guns subsided, the USSR and Western democracies found themselves "on opposite sides of the barricades."

However, the era of the Cold War was strikingly different from the pre-war confrontation of forces of different ideological orientations, as well as from the contradictions of a political, economic, geostrategic nature between individual states or coalitions of previous eras.

It was distinguished by the global scope of competing military-political blocs and the emergence of such types of weapons, the use of which would be disastrous for the entire world community. Characteristics of the Cold War
become:

the emergence of superpowers - the USA and the USSR, possessing unprecedented military power;

the bipolarity of the world, divided into hostile blocs led by superpowers;

the presence of nuclear weapons and their means of delivery on both sides, which allowed in a matter of hours to inflict enormous damage on the enemy;

maintaining a high degree of combat readiness of large groups
troops (forces) by both sides and their continuous improvement.

This made it possible to keep the world on the "brink of nuclear war" for decades. At the same time, air-atomic, and then nuclear-missile weapons, considered in the first decades of the Cold War (40-60s) as a decisive means of victory in a general nuclear war, subsequently became a deterrent due to the realization of the inevitability of mutual destruction.

In addition, a characteristic feature of the Cold War was the desire of the opposing sides to fill the strategic and geopolitical vacuum in the countries of the "third world" that had formed after the collapse of the colonial system.

As never before, military power has increasingly intervened in politics, and nuclear weapons, in fact, have become a special tool of politics. In this regard, the arms race in order to intimidate the political enemy took the form of both open declarative intimidation by demonstrating superior nuclear power, and covert, as far as possible, preparation of new means of armed struggle. The sides strove suddenly, at the right moment, to demonstrate an even more intimidating weapon than that which the political opponent had.

Therefore, the competition of the superpowers in the nuclear and missile arms race was accompanied by many covert operations, incidents that had extremely dangerous consequences, flexing muscles and bluffing in situations where the international situation sharply escalated, the desire to keep secret the number and capabilities of their arsenals and penetrate the secrets of creating new types of weapons. weapons of the opposing military-political bloc.

All this tense, dramatic struggle of minds, military-industrial complexes, and intelligence networks, hidden from the public, became available to the general public only in recent years, with the collapse of the bipolar world.

So how was it all? Why did the appearance of the atomic bomb in the USSR turn out to be completely unexpected for the US ruling circles? How were atomic weapons created in the USSR? What played a major role in this process: science or intelligence? Why did the United States, which had atomic bombs and strategic bombers, not dare to strike at the USSR, which did not yet have them, although plans for an "air-atomic blitzkrieg" were developed? How did Soviet pilots and anti-aircraft gunners get into the war in Korea, in which the Soviet Union did not participate? Has US intelligence figured out Khrushchev's missile secrets? What gave rise to the Caribbean crisis, which brought the world to the brink of a nuclear catastrophe? What contributed to the achievement of military-strategic parity between the US and the USSR?

The answers to these and other questions, which contain the secrets of the nuclear-missile race of the superpowers, are the subject of the book offered to the reader. But this book is not only about how it was, but mainly about why it was the way it was, and not otherwise. It remains to add that the author is a participant in many of the events that it speaks of.

CHAPTER I

ALAMOGORDO - MOLDARS: MILESTONES OF THE NUCLEAR ERA

Alamogordo and Moldary are small villages, one in the USA and the other in the USSR (now the territory of Kazakhstan). They are separated by almost half the planet: about 15 thousand kilometers. It is unlikely that anyone would ever have known about them if the history of the 20th century had not highlighted their names with the fiery letters of the first atomic explosions of the superpowers opposing each other - the USA and the USSR. First

tests of atomic bombs in America and Russia are only four years apart: 1945 and 1949, but full of mystery and drama, the history of the creation of the most destructive means of exterminating people, shrouded in secrets, the desperate struggle of the superpowers for the possession and improvement of this "absolute" weapon was conducted in for decades. Therefore, these two villages, lost in the deserts of America and Asia, went down in history forever at the dawn of its nuclear era.

1. Task number 13

Colonel Paul Tibbets was outwardly calm. He was generally a cold-blooded person. But inwardly he experienced the greatest excitement. Still would! On board the B-29 strategic bomber, the crew of which he led, was a bomb of unprecedented power. The plane flew over the expanses of the Pacific Ocean. A fateful day in history began - August 6, 1945. The crew of Tibbets had to drop an atomic bomb, affectionately called "Baby", which was supposed to incinerate Hiroshima - a city with a population of many thousands. But that was not what worried him: he had repeatedly dropped bombs on the cities of Japan. This time his plane carried a uranium bomb, which was never used, but was not even tested, because on July 16, the Fat Man plutonium bomb (named, as they say, "in honor" of W. Churchill) was detonated during tests in the USA), a second such bomb could be prepared only a few days later, and US President Truman demanded that an atomic bomb be dropped on Japan no later than August 10th. Why such a hurry? Yes, because in mid-August, the Soviet Union was supposed to enter the war with Japan, and in this situation, Washington expected that an atomic strike, or better, two, would force the Japanese to capitulate before the Soviet armies poured into Japan-occupied China, Korea, and maybe to the Japanese islands.

There was another reason for excitement: "Kid", in his combat gear, was going right now, in flight, by a specialist in this case, Captain I Rank Dick Parsons. He was 12th in the Tibbets plane (crew of 11), as he was the best bomb-builder in the US. It's clear. But why couldn't it be assembled on the ground, at the air base of Tinian Island (Guam Islands), from where the B-29 Tibbets Enola Gay took off (named so, by the way, in honor of the mother of the bomber commander)? But because they were afraid to load the atomic bomb in combat gear into the plane before it took off. And suddenly on

the most vulnerable minute for aviation - takeoff - something will happen and the bomb will bang over its air base ...

All these thoughts troubled Tibbets. His crew knew nothing of this. The pilots also did not know that in the pocket of their commander were 12 capsules of potassium cyanide, which the crew had to take in case of "unforeseen circumstances." Only at 3 o'clock in the morning, when about 5 hours remained before the bomb was dropped, Tibbets transmitted by intercom to the crew: "We have on board the world's first atomic bomb." Many of the pilots heard the word "atomic" for the first time. They only knew that they were performing "special combat mission No. 13".

The flight continued. It must be said that Tibbets was not alone in this flight of the B-29. According to the rule established since 1943, he was accompanied by 4 fighters.

In addition, a weather reconnaissance aircraft was flying ahead. At about 0430, the commander of the reconnaissance aircraft, Major Claude Iserli, reported on board the Enola Gay that the weather conditions over Hiroshima were good, and that the Japanese air defense did not notice any signs of preparing to repel a possible air raid.

It was already daylight when the Enola Gay flew up to Hiroshima. The city was easily recognizable in the bright morning sun. Bombardier Tom Ferreby told the commander that he saw the target from afar, in all details, and a second run would not be needed. At Tibbets's command, he opened the hatch doors - and the five-ton "Kid" smoothly went down, taking a vertical position in flight and aiming exactly at the center of the city.

It was 8 hours 15 minutes. The explosion occurred at an altitude of about 700 meters.

When the B-29, lightened by 5 tons, jumped up, Tibbets laid it in a sharp, 150-degree, right turn. Everyone put on dark glasses. The bomb fuse was designed for a 43 second delay. Having counted to 35, the colonel could not stand it:

“Well, how is it, Bob, can you see anything?” he asked machine gunner Caron over the selector.

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— Not at all, sir.

But at that moment, a dazzling light burst into the cockpit, and Caron saw a monstrous spherical mass of air shot up towards the plane.

"It's as if a ring has come loose from some planet and rushed at us," he will remember later.

The bomber was thrown up. Then the reflected wave struck a second time.

As Hiroshima vanished into a shroud of smoke and burning, Caron dictated on tape:

— A column of smoke... Rises quickly! He has a fiery red shell! Fires are everywhere, fires are spreading... there are so many fires that you can't count them. Here it is, the form, in the form of a mushroom, which Captain Parsons warned about! .. "

Colonel Tibbets spoke clearly into his headset: "Target visually bombed with good results." This message was sent to General T. Farrell, Deputy Chief of the "Manhattan Project" (as the American atomic bomb project was called). The Enola Gay's co-pilot, Lewis, quickly scribbled into his private diary in his lap, "My God, what have we done?"

20 minutes after the bombing, Parsons sent General Farrell an Tinian another message:

“The results are absolutely clear and successful in every respect. Immediate action is recommended to implement other plans. The visual effect is greater than in Alamogordo. The target is *Hiroshima. We are heading for Tinian, everything is fine on board the plane .*

So next to the word *Hiroshima ,* Alamogordo sounded . And it is no coincidence: it was there, in the desert state of New Mexico, on July 16, 1945, the atomic bomb was first tested. But the path to the creation of the most deadly and destructive weapons ran through many countries and lasted for many years.

Long before World War II, the attention of world science was riveted to nuclear processes. But until the end

eleven

In the 1930s, these were open scientific discussions. Scientists from different countries shared their experience and achievements in public scientific journals. Studies have shown that nuclear energy is much superior to chemical energy, that its energy potential is colossal. Information is gradually accumulating. The "golden year" of nuclear physics was 1932. It turned out to be truly "fruitful". Chadwick discovered the neutron, Urey obtained heavy hydrogen - deuterium, Cockcroft and Walton in Cambridge first split the lithium nucleus, Anderson discovered the positron. A little later, in 1934, the spouses M. and F.

Joliot-Curie discovered artificial radioactivity, and in Rome began his experiments with slow neutrons, studying artificial radioactivity, Enrico Fermi. In 1934, the German chemist Ida Noddack made the assumption that under the action of a neutron on uranium, not neighboring elements arise, as was thought, but the nucleus breaks up into several pieces. But physicists then did not pay attention to what stood behind Noddack's assumption, namely: when the nucleus decays, a huge amount of energy should be released. And maybe for the better (that *then* they passed by this idea. After all, if German physicists under the Nazis had taken up it, perhaps the atomic bomb would have appeared in the Third Reich.

In the USSR, the Leningrad Institute of Physics and Technology (LFTI), headed by A. F. Ioffe, became the foremost center for nuclear research. It was at this institute that the young talented scientist I. V. Kurchatov worked since 1925.

On December 16, 1932, the LFTI issued an order: A.F. Ioffe: to create a "special group for the core." From that moment on, LFTI became the center of Soviet nuclear physics and remained so until the beginning of the Great Patriotic War. As early as 1935, Kurchatov's group discovered the phenomenon of nuclear isometry. This world-class discovery was made by the brothers I.V. and B.V. Kurchatov with L.V. Mysovsky and L.I. Rusinov. They proved that the transition of nuclei from an excited state to the ground state occurs with a large time delay.

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However, all these important studies and discoveries in different countries were not specific enough, in many respects amorphous, formulated abstractly.

The situation changed dramatically in 1939, when the German scientists O. Hahn and F. Strassmann discovered the fission of the uranium nucleus, and in France F. Joliot and F. Perrin came to the conclusion that the fission of the uranium nucleus by a neutron is accompanied by the emission of several neutrons. There were real prerequisites for the use of nuclear energy through a fission chain reaction, during which huge energy is released. This both delighted and frightened physicists. They understood that atomic energy could be used both for the good and for the destruction of mankind, if used in war. Otto Hahn, having learned about the possibility of creating an atomic bomb, exclaimed: "God will not allow this!" - that during the war years did not prevent him from actively participating in the Nazi "Uranium Project", which, in part, was not implemented.

With the outbreak of World War II, and especially after the defeat of France, all publications in the open press about the possibility of creating a "superbomb" were discontinued. The belligerents have given serious thought to this problem. And especially in England, which remained, in essence, one on one with Germany, whose scientific potential was very high.

However, the British government in solving military problems as a whole remained calm and skeptical. "Skepticism was deep and almost universal," as historians later noted.

As for the United States, the consciousness of the colossal material resources of the country, as well as the fact that it has become a haven for many anti-fascist physicists who emigrated from Europe, obsessed with the idea of having time to master the secret of super-powerful weapons before Hitler, quickly set in motion significant scientific forces. Here, apparently, the spirit of international cooperation, still living in scientific laboratories studying the problems of the atomic nucleus, had an effect .

a group of physicists who resisted any attempt to impose a different way of thinking on them, to divide them into opposing clans, fenced off from each other by a wall of secrecy, national egoism. The famous Cavendish School

Rutherford laboratories were studied by scientists from different countries, including Soviet ones: P. L. Kapitsa, Yu. B. Khariton, K. N. Sinelnikov, A. I. Leipunsky. A very characteristic statement against the idea of total classification of science by P. L. Kapitsa is already during the war, when both in the USA with the help of the British and in the USSR work on the creation of an atomic bomb was in full swing, he wrote in September 1944: “... narrow selfishness, imagining that one can take without giving, can only be the politics of a stupid person. No wonder the Holy Scripture says: "The hand of the giver will not fail." Life experience shows that narrow egoism, both in the life of an individual and in the life of a state, never

justified" 2 .
The situation in England began to change only in the spring of 1940. In March, a short document appeared on the desk of the Chairman of the Air Defense Committee, G. Tizard, which immediately changed the attitude of the leaders of the British nuclear program to the use of science for the defense of the country.
Three pages of typewritten text prepared by physicists Otto Frisch and Rudolf Peierls from the University of Birmingham, who emigrated from Germany (and for security reasons were not allowed to work secretly on equipping the British armed forces with the latest equipment), forced those who were engaged in scientific and technical developments on defense topics, take a fresh look at atomic physics. This document, known as the Frisch-Peierls Memorandum, was so explosive that it set British government officials ablaze in an instant. It was called modestly: "On the creation of a "superbomb" based on a nuclear chain reaction in uranium." Its authors convincingly showed that the creation of an atomic bomb is practically possible,

despite the complexity

an industrial method for obtaining pure or almost pure uranium-235 and the complexity of the manufacturing technology of the bomb itself. Frisch and Peierls also predicted the deadly effect of radiation that persisted for a long time after the explosion, from which they see no possibility of finding protection. This prediction was accompanied by a statement by scientists about the immorality of the use of the atomic bomb, since this weapon of mass destruction brings death primarily to the civilian population, whose insecurity becomes absolute. “We have no information,” wrote Frisch and Peierls, “whether the same idea came to other scientists, but since all the theoretical data related to this problem have been published, it is quite possible that Germany is already developing this weapon” 3 .

So, preempt Hitler in creating an arsenal of deterrence in the form of a reserve atomic bombs became the most important task of the countries that fought with Germany.

In addition, by this time it was already becoming more and more clear to London that the “strange war” could not be ended by a compromise with Hitler and that its transition to an active phase would require the exertion of all the forces and intellectual resources of the nation. The defeat and capitulation of France in May-June 1940, the exit of the Wehrmacht to the shores of the English Channel put England on the brink of disaster. In fact, England was left face to face with Nazi Germany, which had conquered almost all of Europe and was planning to throw across the English Channel. In the absence of allies, in the face of complete uncertainty about the prospects for maintaining the security of sea lanes linking them with the United States and Canada, the British had no choice but to search for any means and ways to ensure the survival of their nation as a sovereign state.

Under these conditions, everything that could strengthen the defense of the country, bring it forward in military-technical terms, was delivered, despite the severity

material costs first. It was decided to immediately begin to develop a whole range of measures to start

movement towards one goal - the production of an atomic bomb. These measures included organizational, material, intelligence and diplomatic support for the entire preparatory cycle of work and provided, in particular, for establishing contacts with the US government, and through it, with American scientists in the field of nuclear physics. The first steps were taken in the greatest secrecy, everything was strictly classified.

For the purpose of secrecy, a special subcommittee under the Committee on Scientific Questions of Air Defense, set up headed by Professor Thomson, was to develop the concept of the atomic bomb project. The project was codenamed "Tube Alloys", which can be translated as "tube alloys"4 . The significance of the new weapons in London was realized
completely, and by that time it was considered by politicians as the most important prerequisite not only for strengthening the country's defense capability, but also for ensuring its future as a great power. It is for this reason that the Thomson Subcommittee, in its first reports, proceeded from the advantage for England of independent implementation of this project. Churchill, now especially concerned about the preservation of the power of the British Empire, was ready to try this dangerous path. After the British secret services helped the German scientists G. von Halban and L. Kovarsky to move to England and smuggle the results of their research from Paris along with a supply of heavy water, the Prime Minister's confidence in the reality of achieving the goal increased. The head of the project was a member of the cabinet of ministers, J. Anderson. The "Thomson Subcommittee" ceased to exist: disappeared, hiding behind an innocent sign of either a technology company or a laboratory at a pipe rolling plant ...
In the United States, by that time, a very important phase had been passed in involving the state authorities in the organization of research in nuclear physics. The main initiative in this belonged to the Hungarian émigré physicist Leo Szilard. In the summer of 1939, alas, he unsuccessfully tried

to interest the US military departments in financing experimental work. Faced with the passivity of military officials, Szilard chose a different path, which turned out to be unexpectedly the most effective. He arranged a meeting with Albert Einstein. Szilard hoped to persuade the famous scientist to seek support from the government, Einstein agreed with Szilard's arguments, but expressed doubt that they would be able to overcome the government bureaucracy. Then Szilard suggested that Einstein write a message to President F. Roosevelt, and he took over the organization of the delivery of this letter to the addressee. He knew Alexander Sachs, vice president of one of the leading industrial corporations, an economist who was involved in many government agencies in the early years of the New Deal. President Roosevelt knew and appreciated this energetic man, a native of Russia. Sachs undertook to arrange Bqe for a "breakthrough" into the White House.

Szilard's fears were clear and close to Sachs, and he himself was an ardent supporter of decisive measures to prevent the spread of the fascist danger. Invited in early March 1939 to address the audience and faculty at the Naval Academy at Annapolis on the growing threat of war, Sachs prepared a thesis that he called "Notes on the Approaching War and the General Cultural Crisis in the Interwar Period."

After this report had been listened to with great attention by the audience,

Sacks sent his main theses to President Roosevelt. Then this document will become "the basis for substantiating the project to create an atomic bomb."
Stating the threat looming over Europe and the inevitability of a war between the Western democracies and Germany (this was in March 1939, after Hitler had seized the entire territory of Czechoslovakia and Memel), Sacks wrote: “Western civilization, and especially the exceptionally advantageously and happily located United States, has there is still time to prepare for reflection increased 17

5 Both Sachs, a native of Russia, and Szilard, a Hungarian, were well aware of the ability of the Germans to seriously take up the matter and bring it to the end, and understood what a delay in military training could turn out for America. Szilard I felt cold at the thought that somewhere in the Berlin laboratories of the Kaiser Wilhelm Institute, the staff of Professor Werner Heisenberg had advanced faster and further than the British or Americans ...

Soon a meeting took place between three well-known US physicists - Einstein, Leo Szilard and Edward Teller, who also emigrated from Hungary. A letter was drawn up to the President of the United States, signed by Einstein, and Sachs undertook to deliver it to Roosevelt, to whom it was handed on August 15, 1939. This message to the president was written in very cautious terms, but the main idea was expressed with the utmost precision: science has made it possible to create a terrible type of weapon - the enormous destructive power of the atomic bomb; the threat of Nazi Germany getting hold of its secret requires the development of work on this new weapon in the United States without delay.

Sacks did not immediately manage to get a meeting with the president. The political crisis, growing every day in the summer of 1939, ended with the German attack on Poland. The world exploded. The Anglo-French-Soviet negotiations in Moscow failed; On August 23, a Soviet-German non-aggression pact was signed; On September 1, German tanks crossed the Polish border; On September 3, England and France entered the war on the side of Poland. Five days later, Roosevelt declared a national emergency and focused all his efforts on lifting the arms embargo on warring nations in order to help the democracies of the West.

Finally, on October 11, Sachs showed up at the White House. But, alas, almost an hour's conversation did not move things forward much. The president was not persuaded by the arguments of Einstein, Szilard, and Sachs that the US government should
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slowly start financing an expensive project. However, parting, Roosevelt invited Sachs to meet the next day. At this meeting, Sacks made many arguments in favor of the proposed project. He recalled the instructive story of the salvation of England during the Napoleonic wars during the days of the continental blockade only because of the short-sightedness of Napoleon, who rejected the proposals of the American inventor Fulton to build a steam-powered fleet capable of crossing the English Channel in any weather and appearing in the most unexpected places for the enemy. Sachs also conveyed the opinion of English physicists about the terrible destructive power of these weapons. The president then asked, "Alex, are you concerned that the Nazis don't blow us up?" "That's right," Sax replied. After that, the president called his military assistant, General Edwin Watson, to the office. Handing him the papers Sax had brought with him, he said, "This calls for action."

So the arguments of Einstein-Szilard-Sachs acquired the necessary

convincing performance.

A Uranium Committee was formed, chaired by the head of the Bureau of Standards, Lyman Briggs. Dissatisfied with the burden that had fallen on him, Briggs was distrustful of scientists who developed ideas he did not understand. And the military leaders who received the presidential order did not hide their skepticism, although they did not refuse funds.

In desperation, physicists decided to turn again to Roosevelt for support. On March 7 and April 25, 1940, the same Sachs handed over to the president one after the other two new letters from Einstein. The first contained a warning: "... interest in the uranium problem in Germany has increased," and the second developed the idea of a special government body that could independently solve all the practical problems associated with work on the atomic bomb.

The war unfolding in Europe prompted the US government to take more active steps in deciding the

the nuclear project. The capture of Sweden and Denmark by the Germans, the rapid defeat of France, unexpected for the whole world - in just 44 days, the evacuation of British troops, who left all heavy military equipment near Dunkirk, to Great Britain - all these events made Hitler the complete master in Western Europe. Washington became more and more aware of the growing danger of fascist aggression for the United States as well. The restructuring of industry for military needs began, and the armed forces were strengthened. Much attention was paid to the problems of achieving military-technical superiority over Germany. They knew that the "German gloomy genius" could prepare the most cruel surprises in the field of military technology.

On June 27, 1940, Roosevelt appoints Dr. W. Bush, president of the Carnegie Institution, to lead the government's entire defense research program. The nuclear problem passed into the competence of the National Committee for Scientific Research for Defense (NCNS), headed by W. Bush. Now it was up to the committee to engage in dialogue with the scientists who first sounded the alarm: Szilard, Fermi, Wigner, and Heller.

At first, ties with England were established without complications. In London, after the defeat of France, they looked very pessimistically at the chances of British science in independently solving the problem formulated in the Frisch-Peierls Memorandum. The diversion of forces and means to solve the extensive day-to-day tasks of defense made it impossible to organize large-scale work to create an atomic bomb. On July 8, 1940, the British ambassador to the United States, Lord Lothian, in a letter to Roosevelt notified him of his government's readiness to share military secrets with the Americans. The British expected that the United States would bear all the costs of setting up the laboratory and industrial base of the project.

Washington responded immediately. There was an exchange of groups of scientists. In September 1940, Henry

Tizard at the head of the British delegation appears in the United States, and in February 1941, Dr. James Conant, the rector of Harvard University, who shortly before became the deputy of W. Bush, went to England. The British acquaint Bush and Conant with the contents of the Frisch-Peierls Memorandum, and the Americans learn that the creation of an atomic bomb will require not tons, but only 5 to 10 kilograms of enriched uranium, and that, provided proper financing and supply of raw materials, the time frame for its creation can be reduced to two years.

The participation of the British and Bush's confidence that the creation of an atomic bomb by

shoulder of science and industry in the United States, find understanding in the presidential administration. Special missions of both sides are being set up in Washington and London for the purpose of exchanging scientific and technical information of defense importance. And in June 1941, the Americans receive a copy of the secret "Report of the Thomson subcommittee on the use of uranium for the production of the atomic bomb." Acquaintance with this report shortens the Americans' search stage of work on the atomic bomb, giving a fairly clear idea of their overall scope, prospects, and many important conditions for scientific and technical support. Bush and his associates in the NCNC are getting another argument in favor of speeding up the work. Hitler's aggression against the USSR sharply accelerates their course. It was decided to act without missing a single day. The pace and rhythm of preparatory activities increase many times over.
In June 1941, the Directorate for the management of scientific research activities was formed with great rights and powers. It was headed by W. Bush. NKNS is part of the newly formed department. It was decided that a highly classified department of management - Section I would take over the leadership of the work on the creation of atomic weapons. No one knew about its existence, with the exception of Vice President G. Wallace, V. Bush, D. Conant, Secretary of War G. Stimson and Army Chief of Staff General D. Marshall. They made it like this

called the Political Committee, which deals with the general strategy of the government in the field of the use of atomic energy for military purposes. Henry Wallace was its nominal chairman, with President Roosevelt and his special assistant, Harry Hopkins, setting the general line of his activities. All major decisions of the "atomic matter" were made at the extremely important meeting of Roosevelt, Wallace and Bush on October 9, 1941.

The international aspects of the atomic problem attracted Roosevelt's attention from the very beginning. This is evidenced by the fact that already on October 11, 1941, the President sent a letter to Churchill in which he invited the Prime Minister to act as a partner in the area that falls within the competence of the Thomson Subcommittee in England and the Bush Administration in the USA. Roosevelt writes about the importance of coordinating work, or even "co-producing it." Exactly one month later, the president has one more reason to look at the problem as an increase in joint efforts with the allies in the war against fascism.

On December 7, 1941, the Pacific War began with a Japanese air attack on the US naval base at Pearl Harbor. America entered World War II.

On the same day, the uranium-235 necessary for the production of the atomic bomb was obtained at the old Lawrence Radiation Laboratory in Berkeley, California.

In the early spring of 1942, Szilard, Fermi, Wigner and other scientists who settled in Chicago under the roof of a secret laboratory ("Metallurgical Laboratory") did not leave the feeling that the US government was unacceptably slow and that soon the Nazis, ahead of the US, would receive an atomic bomb. Many thought that the war was almost lost, unless a miracle saved the allies. In order to achieve this "miracle", groups of outstanding scientists and talented youth were formed, capable of promptly substantiating the scientific concept of atomic weapons.

Of course, the results of research in England and the USA became a necessary solid basis for continuing the work, but their generalization in a complete theoretical

the model was yet to be made. And at this stage, Robert Oppenheimer, a scientist and practitioner, a colleague of Lawrence at the University of California, becomes the leader. Chicago and Berkeley are becoming strongholds of scientific mobilization on the atomic problem. Arthur Compton, Nobel Prize winner, head of the Metallurgical Laboratory in Chicago, and Robert Oppenheimer, professor at the University of Berkeley, become generators and coordinators of the activities of all scientific teams that were to "create a miracle."

In March 1942, W. Bush was already able to inform the president that all the data and experiments showed that they would create a bomb in 1944, and its power would surpass all the calculations made. Upon receiving this news, Roosevelt felt it necessary to hurry the scientists. Gaining time is, he wrote to Bush in a special memorandum, "the crux of the matter."

The breakout period is over. In Bush's words, "a race to implement" has begun. Guided solely by the interests of the cause, he proposed that the practical completion of the project be entrusted to the army and the military ministry with their powerful engineering corps. In the fall of 1942, such a decision was made by the president.

This is how an organization was born, unknown until then in the history of the United States: both in terms of the scope of its activities, and in terms of financial capabilities, and in terms of its share in the structure of the military economy, in terms of how directly, harshly, with the strictest secrecy, it submitted only to the president. Congress was not even made aware of its existence. In September 1942, Colonel of Engineers Leslie Groves, an energetic builder of the Pentagon, was assigned the duties of the immediate head of this grandiose program, absorbing a huge part of the national intellectual, technical, financial and other resources. The code name was given to the new giant enterprise, which has located its enterprises and scientific centers in 19 states and Canada - "Manhattan Engineering Project".

Leslie Groves, promoted to brigadier general in connection with the new appointment, was soon included in the Political Committee, which included Bush, Conant, Wallace, Stimson and Marshall. In the spring of 1943, the administrative management structure finally took shape in the form in which it existed until the end of the war. In anticipation of solving the purely military problems of the use of the atomic bomb, Roosevelt appoints Secretary of War Stimson as head of this political staff, making him, in fact, responsible for everything related to the overall life support of the project, minus purely scientific matters. Stimson is assisted by two of his assistants, privy to the secrets of the secret "Manhattan Project": Boston lawyer Harvey Bundy and experienced administrator George Garrison.

The influence of Robert Oppenheimer is silently recognized and rapidly growing - and now the choice falls on him when deciding on the issue of the scientific supervisor of the project. So Stimson, Bush, Groves and Oppenheimer,

A threat from a competitor in the ongoing race for new weapons "capable of winning the war"; the president's demand to catch up as soon as possible; creation of a coherent organizational structure of the project, ensuring close interaction between science and production; generous funding and, finally, the promotion of talented, energetic and ambitious leaders to the first roles - all this had an immediate effect. The laboratory base is developing rapidly, plants for the enrichment of uranium-235 and for the construction of industrial reactors in Oak Ridge (Tennessee) and Hanford (Washington) are growing. At the insistence

Oppenheimer in Los Alamos (New Mexico), a secret scientific center is being created, where outstanding scientists and experimenters of various specialties are concentrated - brave and gifted people capable of making extraordinary decisions. Giant industrial concerns, university centers and engineering and technical services of the army, navy, and aviation are involved in the work on the project.

The crushing defeat of the army of Paulus at Stalingrad, the defeat of Rommel at El Alamein, the landing of the American-British troops in North Africa - this led to a turning point in the war in favor of the Allies. Particularly favorable for the United States and Britain was the fact that the Red Army launched a decisive offensive on a huge 6,000-kilometer front. The allies' fears about "keeping Russia in the war" disappeared, and it became possible to allocate more funds for equipment, building up industrial capacities, and attracting new specialists in atomic problems. So, grinding the Wehrmacht and diverting all German resources on the Soviet-German front, the Red Army contributed to the "Manhattan Project" was conceived on a grand scale. At the disposal of Groves was transferred 2 billion dollars. Union Carbide Manhattan Project.

Chemical Corporation, which has long supplied explosives to the military department, has started building a uranium-235 enrichment plant. In the valley of the Tennessee River, the city of Oak Ridge arose with 80 thousand inhabitants who worked at this enterprise. The physics laboratory at the University of California at Berkeley served as the experimental base for the Oak Ridge plant. Another secret city - Hanford - with 60,000 inhabitants grew up in a barren desert on the south bank of the Columbia River. The famous physicist Enrico Fermi directed the design and construction of industrial reactors for the accumulation of plutonium there.

Theoretical research and experiments related to the "Manhattan Project" were carried out in the metallurgical laboratory in Chicago, as well as at the universities of Harvard, Princeton and Berkeley.
All work was carried out in the strictest secrecy. As General Groves later recalled, maintaining secrecy boiled down "to three main tasks: to prevent any information about our program from getting to the Germans; to do everything possible to ensure that the use of a bomb in a war was a complete surprise for pro 25

tivnik; and, as far as possible, to keep secret from the Russians our discoveries and details of our projects and factories"6 .

In the spring of 1945, the atomic bomb, or rather, its sample, which should have been tested, was almost ready. On May 10, 1945, a committee met at the Pentagon to select targets for the atomic bombing. The members of the committee agreed that large settlements that were not affected by the raids are best suited for this purpose. On their recommendation, the commander of the 20th Air Army, General K. Limay, was ordered to exclude four Japanese cities from the schedule of conventional massive bombardments. This list, which puzzled American pilots, included Hiroshima, Kokura, Niigata, and Nagasaki. They were "saved" for an atomic strike.

On May 31, 1945, the Provisional Committee on Problems of Atomic Weapons met at the Pentagon. It was dominated by the military and politicians. Scientists were invited only with an advisory vote as part of the so-called advisory group. The agenda was formulated as if the question of the use of atomic weapons against Japan did not raise any questions at all.

doubts. Pentagon officials insisted on the need to use atomic bombs, citing the heavy losses that American troops had suffered in the bloody battles on Okinawa for the second month now. (About 13,000 Americans died there.)

We listened to the scientists. Oppenheimer expressed the point of view of the entire advisory group: before the combat use of a new weapon, it is desirable to make a preliminary demonstration of it in the presence of representatives of the world community. After a heated discussion, the Provisional Committee comes to the following conclusion: atomic weapons should be used against Japan without prior warning, as soon as possible and against such targets as will most clearly demonstrate their destructive power.

Three weeks later, the US government decides to drop atomic bombs on Japan.

On July 16, 1945, an American atomic bomb was successfully detonated at a test site in New Mexico. The landfill is called Alamogordo. So this village goes down in history.

2. Laboratory No. 2

By the beginning of World War II, the Soviet Union also had impressive achievements in the field of nuclear physics.

In the middle of 1939, Soviet physicists Yu. B. Khariton and Ya. B. Zel'dovich calculated the chain reaction of uranium fission and came to the conclusion that an explosive reaction could be obtained in the pure uranium-235 isotope. In 1940, in the laboratory of I. V. Kurchatov, his students G. N. Flerov and K. A. Petrzhak discovered the phenomenon of spontaneous fission of uranium. Kurchatov had the most direct relation to this discovery, but he crossed out his name from the scientific report, "so as not to obscure his students."

To the credit of our Academy of Sciences, it should be noted that at the end of 1938 it put the problem "The atomic nucleus, its properties, structure and use of nuclear reactions" in the first place among all works in physics, calling it "the most shocking problem of modern physics."

Kurchatov presciently understood that the colossal energy of uranium fission, if you learn how to control it, will go to the benefit of mankind. This is what he aimed his team and all whom he could captivate and convince, he saw the meaning of his whole life in this.

In 1940, there was already a clear understanding that society was on the verge of a scientific and technological revolution.

On July 30, 1940, the Presidium of the Academy of Sciences of the USSR adopts a resolution on the creation of a commission on the problem of uranium. V. G. Khlopin, the most prominent radiochemist of our country, was appointed chairman of the uranium commission, and V. I. Vernadsky and A. F. Ioffe were appointed his deputies. The commission includes I. V. Kurchatov, P. L. Kapitsa and Yu. B. Khariton.

In November 1940, the annual All-Union Conference on Nuclear Physics was held in Moscow. It was the last on the eve of the war and the last where uranium fission was openly discussed. Speaking with a report and speaking about the fundamental possibility of a chain reaction, I. V. Kurchatov utters prophetic words: "A chain is possible and vital."

Here it is appropriate to tell, at least briefly, about the main milestones in the life of this outstanding physicist, academician of the Academy of Sciences of the USSR, three times Hero of Socialist Labor (1949, 1951, 1954).

Igor Vasilyevich Kurchatov was born on January 12, 1903 in the city of Sim, Chelyabinsk Region. In 1923 he graduated from the Faculty of Physics and Mathematics of the Crimean University. In 1924, he began research work in the field of dielectric physics at the Baku Polytechnic Institute.

In the winter of 1924, Kurchatov, on behalf of Professor Obolensky, conducts his first independent study, measuring the alpha radioactivity of snow. This is his first touch on the problem, which will become the main one for him in the early 30s.

In the summer of 1925, Kurchatov went to Leningrad, to the Physico-Technical Institute, where he was invited by Academician Ioffe. He was accepted to a freelance position as an engineer-physicist of the 1st category. In 1930, Kurchatov himself was in charge of a large physical department, which included "shock brigades". In 1934, he was approved as a full member of the institute. Very soon Kurchatov makes his first scientific discoveries. Together with his brother, B.V. Kurchatov, and friend, P.P. Kobeiko, Igor Vasilievich in 1929 discovers a whole class of new substances, which he calls ferroelectrics. In September 1934, for his work on ferroelectrics, dielectrics and semiconductors, Kurchatov was awarded the degree of Doctor of Physical and Mathematical Sciences without defending a dissertation. Two months later, the Scientific Council of the Institute of Physics and Technology presents him as a candidate for election to corresponding members.

Academy of Sciences of the USSR in the category of physical sciences. In a letter dated November 13, 1934, Academician Ioffe wrote to the Secretary of the Academy:

"AND. V. Kurchatov is one of the most talented young physicists in the Soviet Union. For 10 years of his scientific activity, he published 40 scientific studies, the vast majority of which gained great importance. Particularly remarkable is the group of works on Rochelle salt. These works have already created a great literature in Germany, Switzerland, France and America.

Another area where in 1 year Kurchatov and his collaborators produced more than 10 papers, established a large number of new fundamental factors and regularities, is *the area of nuclear reactions.*

The third area studied by Kurchatov is *the electrical properties of dielectrics and semiconductors. Here, his dendritic theory of rectification and breakdown of electrically conductive dielectrics, the study of the tunneling effect in carborundum, Faraday's law and polarization phenomena are especially remarkable.*

In all these areas, Kurchatov's work occupies an outstanding place in the scientific literature, and the work on ferroelectricity is a classic .

At that time I. V. Kurchatov was not elected as a corresponding member of the Academy of Sciences of the USSR.

By the end of the 1930s, Soviet nuclear physics came up with outstanding results. The first generation of nuclear physicists has grown up. "First among equals," as Ioffe put it, was Kurchatov.

It is natural that in the summer of 1938 the scientific council of the LPTI for the second time nominates Kurchatov for election, but already as a full member of the Academy. The Institute is supported by the Pedagogical Institute named after M. N. Pokrovsky. Its description notes:

“... Kurchatov is a prominent Soviet scientist, whose research work has not only been widely used in technology, but also testifies to new searches for him in the most difficult areas

ties of modern physics, about the paths he paves in the research

work of young Soviet scientific thought.

Elections were held in 1939. Kurchatov was not elected. But everything was still ahead: titles, awards, and world fame.

And then, in the last pre-war year, work began on the construction of a cyclotron to study the chain reaction. Its construction was carried out under the leadership of I. V. Kurchatov and A. I. Alikhanov. Academician A.P. Alexandrov, later president of the USSR Academy of Sciences, recalled the years when Soviet physicists reached the forefront of Russian science:

"Already in 1940, at a seminar at the Phystech, we listened to the report of Ya. B. Zeldovich and Yu. B. Khariton, who for the first time in the world made a correct assessment of the possibility of organizing a chain reaction of uranium fission. In 1939-1940 *. Soviet works on nuclear physics accounted for about a third of the world's publications. It was clear to us that it was necessary to develop methods for enriching natural uranium with the 235 isotope, to learn how to obtain neutron moderators with weak absorption. Soviet physicists have already formed the opinion that the chain reaction can be controlled by absorbing "delayed" neutrons .*

It was then that in Kurchatov's laboratory his collaborator G.N. Flerov and K.A. Petrzhak of the Radium Institute discovered the spontaneous fission of uranium.

A few days before the start of the Great Patriotic War, a magnet was made for the cyclotron at the Leningrad Electrosila plant. Next to the building of the institute, a new one, similar to a planetarium, has grown. The report on the installation of the cyclotron was published by the Pravda newspaper on June 22, 1941.

On this day the war began.

I. V. Kurchatov and A. P. Alexandrov, with employees of their laboratories, worked on the fleets to demagnetize ships in order to reduce our losses from fascist magnetic mines. Many future members of the nuclear

epics now defended the honor and independence of the Motherland with weapons in their hands.

In the fall of 1942, Kurchatov had to leave work in the Navy, and together with them and the leadership of the LPTI armored laboratory. There were good reasons for this.

Back in 1940, the Commission of the Academy of Sciences for the Study of the Atomic energy under the chairmanship of Problem, Academician Khlopin, recommended government and scientific institutions to follow the scientific publications of Western experts on this problem. The head of the scientific and technical intelligence of the NKVD L.P. Kvasnikov handed over the orientation to the residencies in Scandinavia, Germany, England and the USA. Their task was to collect all the information on the development of a "superweapon" - a uranium bomb. V. Zarubin (pseudonym Cooper) was sent to Washington. He had documents addressed to the secretary of the embassy Zubilin. His wife Yelizaveta, a veteran of Soviet intelligence, left with him.

On October 12, 1941, when the Germans were advancing on Moscow, Zarubin was received by Stalin. He was ordered to create a large-scale and effective undercover intelligence system not only to clarify events, but also to influence them. However, materials on the development of atomic weapons that began to arrive at the center from other countries made this area of work a priority for Zarubin, and not only for him. The "Cambridge Five" also worked on this problem: McLean, Philby, Burges, Cairncross and Blunt. As early as September 1941, Moscow knew about the English atomic project Tube Alloys.

From April 1942, the State Defense Committee of the USSR began to receive information suggesting that the Nazis were also working on the creation of a new, very powerful - atomic - weapon. By that time, it was already known that similar work was being carried out in the United States, with the same goal, and that it

surrounded by extreme secrecy. In August 1942, Flerov, in a letter addressed to Stalin, expressed concern about the possible conduct of work on the creation of atomic weapons abroad and insisted on the resumption of work on the fission of uranium.

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This letter is a very remarkable episode in the development of Soviet work on atomic weapons. It has already been said above that Georgy Flerov and his colleague Konstantin Petrzhak, under the guidance of Kurchatov, carried out an important study with a sensational result in the prewar years. They discovered a new type of radioactivity - the spontaneous fission of uranium nuclei. But the war began
Flerov was drafted into the army. And here he is, a lieutenant technician of an air unit, by the will of military fate in April 1942, ends up in Voronezh. The city university was evacuated to the rear, but the university library was delayed and remained in place. The lieutenant technician goes to the library, looks for foreign journals on physics, carefully reads them in the reading room, which has been frozen over during the winter, and makes sure once again that there are no publications on the atomic nucleus in them. And if so, then these studies in Germany, England, America are now SECRET. Then he sits down and writes a letter: *“Dear Joseph Vissarionovich!*

Already 10 months have passed since the beginning of the war, and all this time I feel in the position of a man trying to break through a stone wall with his head. What am I doing wrong?

Am I overestimating the "uranium problem"? No, this is incorrect. The only thing that makes uranium projects fantastic is that they are too promising if the problem is successfully solved. I have to make a reservation from the very beginning. Maybe I'm wrong - in scientific work there is always an element of risk, and in the case of uranium it is more than in any other ... However, imagine for a moment that with uranium "it worked out". True, this will not produce a revolution in technology - the work of the last pre-war months gives confidence in this, but a real revolution will occur in military technology. It will happen without our participation, and all this only because in the scientific world now, as before, inertia is flourishing.

It seems to me... we are making a big mistake... The biggest stupid things are done with the best intentions.

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We all want to do everything possible to destroy the fascists, but there is no need to flog the fever - to deal only with those issues that fit the definition of urgent military tasks.

So, I consider it necessary to convene a meeting to resolve the issue, consisting of academicians Ioffe, Fersman, Vavilov, Khlopin, Kapitsa, Leipunsky, professors Landau, Alikhaiov, Artsimovich, Frenkel, Kurchatov, Khariton, Zeldovich; doctors Migdal, Gurevich. It is also desirable to call K. A. Petrzhak,

I ask for the report 1 hour 30 minutes. It is highly desirable, Iosif Vissarionovich, your presence - explicit or implicit ... "9

The letter could not go unnoticed. In addition, it was sent on time: in the same spring of 1942, Stalin also received a letter from S. V. Kaftanov, authorized by the State Defense Committee (GKO) for science, with the same information, but referring purely to Germany. The reason for it was the notebook of a murdered German officer with calculations that clearly related to the creation of nuclear weapons. The delay, apparently, is due to the fact that the provisions and proposals made by Flerov were carefully checked. The intelligence data available by that time in the Kremlin already showed the importance attached by both the allies and the enemy

nuclear research.

In any case, in the fall of 1942, academicians A.F. Ioffe, V.I. Vernadsky, V.G. Khlopin and P.L. Kapitsa were called to Moscow, to the GKO, from the evacuation. They had to answer the question of whether work on uranium fission should be resumed immediately. It was not easy, it was not easy to answer such a question at the very height of the war, when the Germans were still strong and for us an obvious turning point for the better had not yet come. Scientists, however, spoke in favor of starting work.

In mid-September 1942, after a conversation with Academician A.F. Ioffe, after a conversation with Academician A.F.

Kazan Kurchatov. Kurchatov left for Moscow on September 15, immediately after Ioffe's return from Moscow to Kazan. Apparently, during this visit, Kurchatov met S.V. and the position of Deputy Chairman of the Council of People's Commissars.

In October-November, at the suggestion of the government, Kurchatov prepares a note on the resumption of work in nuclear physics. After its consideration in the GKO, I. V. Kurchatov and other scientists, including Yu. B. Khariton, Ya. B. Zeldovich, I. K. Kikoin and A. I. Alikhanov, G. N. Flerov, together with M G. Pervukhin is instructed to submit a plan of measures to start this work.

On October 28, Igor Vasilievich writes to his wife in Kazan: "There is a lot of work ... I will stay in Moscow for 10 days." November 11: "... I think to stay in Moscow until December 5." He returned to Kazan on December 2, 1942, on the very day when, at 15:25 Chicago time, Enrico Fermi for the first time in the world carried out a chain reaction of uranium fission in a reactor built by him in the United States, thereby opening the way to the creation of an atomic bomb.

Remembering that time, Academician A.P. Alexandrov later wrote:

"In September 1942, having flown to Kazan from Stalingrad, I did not find Kurchatov. When he returned from Moscow, he told me: "We will continue to work on nuclear physics. There is evidence that the Americans and Germans are making atomic weapons." - "How is it possible to deploy such a thing during the war?" - "But it is said not to be shy, to make any orders and immediately begin to act."

Later he moved to Moscow. And soon from the front and from different cities began call physicists to him. The turn has come to me . "

When the Soviet troops went on the offensive near Stalingrad, the State Defense Committee took the final

the start of work on the "uranium project". "The leaders of our state, - recalled M. G. Pervukhin, - they immediately accepted the proposals of scientists. Just a few days later, we were instructed to start the business. And later, when in the process of work we reported to the leaders of the party and government, they listened to us very carefully and delved into every issue. There was even anxiety on the part of Stalin. He attached great importance to the solution of the atomic problem."11 At the end of 1942, at the direction of Stalin, a special meeting of the GKO was held. A.F. Ioffe, N.N. Semenov, V.G.

Khlopin, P. L. Kapitsa and young I. V. Kurchatov. Academician Ioffe, who spoke at the time, suggested that at least 10 years would be needed to realize such a task.

No, fellow scientists! Stalin said with irritation. “We are not satisfied with this time frame. For our part, we are ready to do everything to make your work go faster... And now we must determine who will lead the nuclear project. I think Comrade Ioffe would have coped with such a task ...

But unexpectedly for everyone, the academician dared to withdraw his candidacy and proposed by I. V. Kurchatov.

Stalin looked searchingly at Ioffe for a long time and suddenly said:

“But I don’t know such an academician!”

“He, Comrade Stalin, is not an academician. He is still only a professor, showing great promise.

Academician Kapitsa also withdrew his candidacy in favor of Kurchatov, who, of course, was not allowed to recruit nuclear physicists from Rutherford's laboratory.

“Very well, Comrade Ioffe. But first you give him the title of academician...

In February 1943, an order was signed by the USSR Academy of Sciences on the creation of Laboratory No. 2 at the Academy under the leadership of I. V. Kurchatov. At the same time, Igor Vasilievich summoned Yu. Khariton, I. Kikoin, Ya. Zel'dovich and G. Flerov to Moscow .

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On April 12, 1943, the atomic scientific center of the Soviet Union, the Institute of Atomic Energy, was established. On September 29, I. V. Kurchatov was elected to academicians.

Naturally, the work on atomic energy was given military strategic importance, and the main task was the creation of atomic weapons. Kurchatov with a small group of physicists drew up a plan for solving the problem. In the shortest possible time, it was recognized as the most expedient to create a uranium-graphite reactor for the production of plutonium on it - the material for the charge of an atomic bomb. This turned out to be the most correct way, the merit of domestic scientists, who established the most reliable method for achieving maximum results in the shortest possible time.

If today we were to put into a computer the conditions under which work on the Soviet atomic bomb was launched, in comparison with the conditions of these works at Los Alamos, and also at the German institutes involved in the "uranium project", then the computer would give the answer: "No, with under such conditions, these results could not be achieved.

But they have achieved it! And when creating not only atomic, but also missile weapons, and when building an air defense system, and in other areas of military affairs. That "military generation" (the author is also his representative) "could storm the sky", as Karl Marx said about the Parisian Communards - and stormed!

Kurchatov and his team started from scratch, without laboratory buildings, without installations, without equipment. When above the only towering on the deserted October field - the former Khodynka -

In 1944, a roof appeared as a "red house", the entire Laboratory No. 2 gathered under it. The middle part of the building was occupied by experimental laboratories and Kurchatov's office; employees and he himself settled in the wings; workshops were located in the basement.

Dissatisfied with the pace of work, in May 1945, in a note to Stalin, Kurchatov and Pervukhin proposed to speed up research and experimental design.

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ruktorskie work as the basis for the creation of enterprises of the nuclear industry. And no wonder they were in a hurry. The Americans were just speeding up their "Manhattan Project": 200 thousand researchers and support staff, and

the best equipment for that time, and ideal living conditions ...

And when at 5:30 a.m. on July 15-16, 1945, the first test of an atomic bomb was carried out in the United States, the Soviet Union had only one way out: to create a nuclear weapon, and as quickly as possible. Kurchatov replied to the government's request that Soviet atomic weapons would be created in 5 years.

In the autumn of 1945, to direct all special work, a Scientific and Technical Council was created, which included leading physicists, mathematicians, chemists, outstanding engineers and leaders of some industries. B. L. Vannikov, People's Commissar of Ammunition, was appointed chairman of the council, I. V. Kurchatov and M. G. Pervukhin were appointed his deputies. Under the Council of People's Commissars, the government created the First Main Directorate under the leadership of B. L. Vannikov and his deputy A. P. Zavenyagin, and since 1947—
and M. G. Pervukhin. Academic, industry and military institutions, design bureaus and construction organizations are involved in the work. Complex scientific and engineering problems are solved in the shortest possible time. Nameless new cities are growing - "atomic cities".
They were malnourished, lacked sleep, furniture. Later, the participants in the atomic epic recalled those years as the best years of their lives - the time of creative, genuine work. Everyone was inspired not only by the personal example in the work of Kurchatov the leader, but also by his extraordinary human qualities, which influenced everyone who was nearby or even just heard his name. His energy was beyond human strength, and the scale of his activities is truly grandiose. No one else, as many of Kurchatov's associates note, would have coped with the task better and faster than him. "The work required manual

a new type of parent. Igor Vasilyevich turned out to be the right person in the right place," wrote Academician Ya. B. Zeldovich.

Kurchatov's personal qualities were one of the decisive reasons for the success of the case. People who knew him retained in their memory his bright image - an energetic and cheerful leader. He had time to visit laboratories and enterprises, check the progress of work, talk with performers, cheer up and "puzzle", that is, formulate a task. Meetings with him were expected with impatience, pleased, inspired and remembered for a long time.

"Of the many thousands of people who solved the atomic problem, " wrote A.P. Alexandrov, " there was no person in those years at factories, institutes, at test sites more popular, more respected than a giant with a slow clubfoot gait, eternally radiant eyes and warm short name Beard"13 .

"It was exciting and interesting to work with Igor Vasilyevich. At the facilities, he drank grief with us ... I settled there in the car, -
B. L. Vannikov recalled, " Igor Vasilyevich could live in the city, but despite the inconvenience, he went with me to the carriage. Often in the morning the temperature in the car was near zero. Igor Vasilievich was strong and did not lose heart... His energy was inexhaustible... He responded to any undertakings and entertainments, but he did not drink alcohol at all»14 .

People go to Kurchatov for a critical assessment, for help and advice. He is full of energy and optimism. He is tireless. The surrounding people are exhausted from the "Kurchatov" pace of work. It is available to everyone. The reaction of his moment. He attracts to the cause, all who are able to work, achieving decisive results at the cost of a reasonable expenditure of energy. He creates an atmosphere of inspiration around him, which triples his strength. And the work was gigantic, and at the same time in a completely unknown area, it often went by trial and error.
The Germans, for example, recklessly rejected graphite as a flow retardant.

neutrons, made a bet on heavy water and lost. Americans, using the experience of 38

The rest of Europe, who by the will of fate found themselves in the United States during the war years, also experienced enormous difficulties. So it's in a rich country, a hundred years at all who knew the war, and even on its territory. And the USSR is a completely different matter - Russia, still only resurrecting from the ashes after a devastating war unprecedented in world history. And it is necessary to solve the problem by all means. As soon as possible. Answer the American challenge. We need funds. Money, a lot of money, electricity in huge quantities and scarce materials. And all this needs to be explained to the bosses, who often do not really understand what all this is for.

The situation changed dramatically after the American nuclear bombings of Hiroshima and Nagasaki.

On August 20, 1945, the USSR State Defense Committee decided to form a Special Committee, which was instructed to concentrate all efforts and resources on the creation of atomic weapons.

The most time-consuming was the construction of "objects" for the extraction and processing of uranium, the production of plutonium, the design and serial production of atomic bombs. L.P. Beria, who then headed the NKVD and at the same time held the post of Deputy Chairman of the Council of People's Commissars, was appointed its chairman.

The same decree of the State Committee for Defense established the First Main Directorate (PGU) under the Council of People's Commissars for the direct management of the nuclear project. B. L. Vannikov was appointed head of the PGU, Kurchatov became his deputy for scientific management of the entire atomic program as a whole.

The main slogan was: "Pace, pace and again pace!" And if one of the subordinates asked when it was necessary to complete the task, they usually heard in response: "Yesterday!"

The specialists selected for work moved from overpopulated, half-starved Moscow to the city of Sarov, Gorky Region, which became a closed "atomic city" - Arzamas-16. No need for them or their families already

did not experience.

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There was such an episode. Returning from Berlin after the Potsdam Conference, Stalin called Igor Vasilyevich and asked him why he required so little to speed up the work as much as possible. Kurchatov replied: "So much has been destroyed, so many people have died. The country is on a starvation ration, there is not enough of everything." Stalin said irritably: "A child does not cry—the mother does not understand what he needs. Ask for anything you like. There will be no refusal . "

And it took a lot. Back in 1943, Kurchatov and Pervukhin reported to the government about the need to urgently organize geological exploration and mining of uranium in large quantities. It was decided to search for its new deposits in the country. This case was entrusted to the People's Commissariat of Nonferrous Metallurgy.

It was estimated that the operation of the first small experimental reactor would require 45 tons of pure uranium and about 500 tons of the purest graphite. There was no such amount of materials in finished form. It was necessary to establish their production. And not only to obtain the necessary metallic uranium from ore, but also to develop a technology for cleaning it from impurities, controlling the purity of uranium and graphite at a special, unprecedented level.

At the same time, much more uranium was required than was mined in separate, even pre-war, antediluvian mines. And here the fundamental ideas of V. I. Vernadsky on the role of radioactivity in

development of the planetary system, including the Earth, on the geology of uranium. V. I. Vernadsky himself, his students, academicians A. P. Vinogradov and V. G. Khlopin, director of the Radium Institute, were engaged in this aspect of the project. Soon they and A. A. Bochvar received metallurgical uranium from ore. And this technology has also been mastered by production.

It was also necessary to have ultra-pure graphite - a thousand times purer than it was then in the USSR. There were not even methods for measuring this degree of purity. They were developed at the same time. These works were difficult to unfold. The found uranium lay in hard-to-reach mountainous areas - there were practically no entrances and roads. Down the paths from the mountains

strings of donkeys with huge bags over their backs at the ready, and in them mined uranium ore. Whether she was fit for the job, no one knew. Nevertheless, the task of extracting uranium in the required quantities, and then developing the technology for obtaining both pure uranium and ultrapure graphite, was solved in less than

in a year.

The decisive year for Kurchatov and the laboratory was 1946 - the time for the implementation of a nuclear chain reaction at a uranium-graphite experimental reactor, which began to be built on the territory of the laboratory in the spring. Kurchatov, as the chief experimenter in physical research, headed the construction of the reactor himself. Kurchatov, experimenting, makes far-reaching forecasts, gives assignments for the design of nuclear industry facilities, organizes personnel training, and promotes the construction of new centers and cities. Hundreds of physicists and chemists, metallurgists and metallurgists, geologists and technologists work, regardless of the time and effort, without basic amenities, cut off from home and not even having the right to tell their loved ones exactly where they are and what they are doing. Works are being carried out on a broad front simultaneously in many directions, with a huge risk, when, for example, after an experiment with a microscopic amount of plutonium, a decision is sometimes made and an industrial technology is deployed at a cost of billions. The pace and intensity of all work is at the limit of human capabilities. Kurchatov's associates recall: "It was work without days off, with short breaks set aside for sleep. There were times when, during a discussion, someone fell asleep at the table, then the rest moved to another room to give a comrade a rest ..."

As materials for the first reactor were received on the territory of Laboratory No. 2 in an army tent, without waiting for the building to be completed, uranium-graphite prisms were assembled, on which experiments were carried out, and the optimal parameters of the reactor were sought. And in the building already built, five were laid, one after the other,

reactor masonry. These works, and then the launch of the first reactor, Kurchatov, as a leading experimental physicist, led himself, and the rest - theorists, physicists, engineers and workers - helped him. And one day, during another uranium-graphite laying, one of the workers asked Kurchatov: why should he, the head of a huge state project, take on this menial job? Igor Vasilievich answered this: "All menial work must be done carefully, because the success of the common cause depends on how it is done"16 .

And on December 25, 1946, at 18:00 Moscow time, a nuclear chain reaction in our country became a reality.

This long-awaited event takes place quietly, without noise, except for friendly "Hurrah!" in the dungeon. The first reactor in the USSR is operating.

On New Year's Eve, Kurchatov gathers the participants in this great cause at

himself in a "hut" - a house built according to his desire right "at work". Three joyful events at once: the completion of the most important stage of work, the new, 1947 and housewarming.

He did not yet know, of course, that in 1971, 25 years after the launch of the first F-1 experimental reactor, a memorial plaque would be erected on the building of the "Assembly Workshops" where it was assembled, immortalizing the great achievement of Soviet scientists.

Simultaneously with the construction of the first reactor in Moscow, the design and construction of an industrial reactor was carried out. This is also exhausting work, sleepless nights, extreme nervous tension. The summer of 1948 turned out to be especially difficult, when "everyone worked like hell." Kurchatov slept two hours a day: from two to four. At such a frantic pace was the work of scientists. But not only them. In those years, the first Soviet test site was created for testing "products". Initially, in the summer of 1946, it was planned to make two types of bombs: plutonium and uranium. However, the theoretical calculations carried out later in the KBP and other organizations 42

You and experiments showed that the uranium bomb had a low efficiency, or rather a low coefficient of "harmful action", and required a larger amount of uranium-238, and this would greatly complicate production. Therefore, it was decided to concentrate efforts on the plutonium bomb.

By the spring of 1949, the bulk of the work had been done - the final development of the design, the release method and the detonation system for the first Russian atomic bomb, RDS-1 *, had begun. Then, tests. The tests were supposed to confirm the correctness of the chosen method for creating atomic weapons. A place was chosen for them - Air Force training ground No. 71 near Kerch, near the village of Bagerovo. In accordance with the test program, the carrier aircraft was supposed to drop five samples of bombs not with a nuclear, but with a conventional charge, but with a system of identical fuses. Thus, all systems were checked, there was only one thing missing: a nuclear explosion. Flight
bomb simulator tests were successfully completed.

However, due to the low rate of accumulation of plutonium by the summer of 1949, only one charge was made. Therefore, the "aircraft option" had to be abandoned. Test site No. 2 was chosen for the RDS-1 explosion.

3. Training ground No. 2

It was then that the village of Moldary went down in history. There, on the "wild bank of the Irtysh", at the junction of three regions - Karaganda, Pavlodar and Semipalatinsk, in the territory of East Kazakhstan, a nuclear test site was created. But why exactly there? There, the desert area was almost uninhabited for tens of kilometers. In addition, this plain - the bottom of the ancient dried-up sea - was surrounded within a radius of 10 kilometers by quite high

* This abbreviation had the following meaning: "Russia Makes Itself".

our hills. And, finally, and most importantly, this place of East Kazakhstan lies in the center of the Soviet Union, removed from the borders, from prying eyes, which ideally ensured the secrecy of the deployed enterprise.

In the autumn of 1947, barge caravans began to moor to the banks of the Irtysh in Moldary. Military builders arrived on them, construction and other materials necessary for the construction of an object called "Training Ground No. 2" were delivered.

Severely met East Kazakhstan newcomers. Cold autumn nights for the soldiers, who arrived in summer uniforms, proved to be a difficult test. There is bare sandy steppe all around, there is nowhere to even get straw for mattresses. Fires were made on the fuel brought with them. Sandstorms carried clouds of dust - eyes, ears, nose, mouth clogged with sand. And when the fierce Kazakh winter came, it seemed that the whole body was freezing through. Birds froze on the fly. Mechanisms and cars refused to work. And people lived and worked up to a seventh sweat: they built object No. 905, the significance of which the majority had no idea. A strange settlement sprang up along the shore—

a town made up of dugouts. The builders lived there. In the dugouts there were barracks for soldiers, dormitories for officers, a headquarters, a medical unit, a bathhouse, workshops, storage facilities were equipped - in general, a primary infrastructure was created, without which it would be impossible to ensure the deployment of grandiose construction. And it was carried out on a wide front by the forces of the created separate construction department, which united several construction battalions.

A special department was created in the General Staff to supervise the construction of the test site. It was headed by Major General of the Engineering and Technical Service V. A. Bolyatko. Specialists of the Ministry of Defense assisted research institutes in studying all the damaging factors of an atomic explosion, and also dealt with purely military tasks: the effect of an explosion on

terrain, buildings, equipment, etc. They were also responsible for the operation of the landfill.

But in order to carry out all this work, personnel, specialists of various military professions, were required, and they had to be trained, prepared for the performance of new duties, largely unknown to them.

Initially, all personnel selected for work at the nuclear test site were assembled in Zvenigorod, near Moscow, in the building of the Savvino-Storozhevsky monastery, which then housed a military sanatorium. It was temporarily closed, and it became both a training center, a creative laboratory, and a hostel for officers who had come here from different places of service and mastered their new

specialties.

It was necessary to study dozens of instructions, manuals, graphs, drawings, to master the basics of nuclear physics. And all this was "top secret", and so "perfect" that the majority of those involved in the new work - and there were about a hundred people - knew only that they had to carry out an "important government task." The authorities answered all clarifying questions evasively, insisting that, first of all, it was necessary to acquire the necessary skills, to master new specialties. In other words, study, study and study. Who, where, for what purpose - all this was shrouded in the mystery of the unknown. But, judging by the voluminous, detailed questionnaires that the contingent gathered in Zvenigorod had to fill out, the matter was extremely serious.

In the spring and summer of 1948, most of the personnel of Polygon No. 2

dispersed to various research institutions, depending on the specialty that everyone had to finally master in order to solve the upcoming common problem.

Meanwhile, for those who were directly involved in the construction of the landfill, the picture gradually cleared up. The polygon turned out to be a very extensive and complex object. It stretched for tens of kilometers and consisted of three zones, separated from each other by a significant distance.

distances. All this in the drawings looked like a giant triangle with a base of 70 kilometers and legs of 160 kilometers. The population from this area was relocated to other areas. On the banks of the Irtysh, where the village of Moldary used to be, 160 kilometers from Semipalatinsk, the so-called residential zone is located. It had a residential town (site "M"), buildings of the laboratory group (sites "O" and "D"), barracks, warehouses and bases. Another zone - the experimental field, where the atomic bomb test was to be carried out (site "P"), for security reasons, was removed from Semipalatinsk by 180 kilometers and 70 kilometers from the residential area. Near the experimental field, it was planned to equip auxiliary sites "Sh" and "H". The base airfield and transshipment base were in Semipalatinsk.

The tasks that had to be solved by the people selected for work at the training ground were also clarified. At the beginning of 1948, the commander of unit No. 52605, Lieutenant General P. M. Rozhanovich, who arrived in Zvenigorod, announced that the personnel assembled here were entrusted with participating in the testing of new models of military equipment. They will be produced at a special site far from Moscow, but the site is still under construction. Meanwhile, he briefed the management team with the plan of the test site, which was mentioned above. In the spring of the same year, it became known about the main appointments to responsible positions. In particular, Colonel B.M. D. M. Karbysheva. Only then did he learn the true name of the weapon, which was to be tested by the "team" of the experimental field under his leadership. It was necessary to quickly prepare both the personnel and the field itself for testing.

On April 18, 1948, a Lee 2 plane landed at the Semipalatinsk airfield. It brought here the command of Polygon No.

ral P. M. Rozhanovich, his deputy - the head of logistics, Colonel P. F. Ladygin and other responsible leaders of the military project. On a dirt road, broken by tractors and tractors, on an army jeep, the authorities moved to the object entrusted to them. Around - a gray deserted steppe, damp, cold, in the lowlands there are still snow islands. From the winter months, tall poles with bunches of reeds at the top have been preserved in some places - landmarks for drivers in winter blizzards and at night. The road was full of cars carrying building materials.

We arrived at site "M" - the place of the future residential town. By the shore - the only semi-buried panel house is the headquarters of the head of construction. For several hectares around - dugouts for soldiers, officers, change houses, supply rooms, etc. Behind them - parking lots, warehouses, stacks of logs and metal structures. All this is open to rains, snowstorms, steppe snowstorms.

In the winter of 1947/48, 9,000 military builders built dugout towns here, laid and maintained dirt roads between Semipalatinsk and the zones of Training Ground No. 2, explored local sources of building materials - stone, sand, clay - and began their extraction, K In the spring of 1948, the construction of auxiliary enterprises was completed: formwork, temporary reinforcing, woodworking shops in Semipalatinsk, the banks of the Irtysh for the pier facilities. Temporary berths were equipped on as well as storage facilities. Temporary stations and pumping stations were placed.

With the onset of warm weather, since April, the construction of the main structures began simultaneously at all sites. Special difficulties

represented the construction of instrumental structures on the experimental field. Digging huge pits, moving large masses of soil and many other large-scale work was carried out by low-performance time-serving mechanisms and machines. Diversity of structures, abundance of

fine metal structures and holes in them, reinforcement was forced to make them monolithic. The result is an abundance of manual labor. Brick houses for experimental laboratories were also built by hand. There was a tent city for

housing.

In August, an integrated team of designers from the State Specialized Design Institute No. 2 (GSPI-2) appeared at the test site, the leadership of which, shortly after its arrival, was headed by P. V. Vasiliev. Builders began to receive drawings, where the materials and equipment available on site were already taken into account, and questions on estimates were promptly resolved.

In September, early frosts, surprising for these places, began at night. The grass in the mornings was covered with hoarfrost and an ice film. Despite this, the personnel of the training ground were still housed in summer tents and, of course, were cold at night. The extra 2-3 blankets given out helped little.

By November, builders had completed the first two cinder block and two wooden dormitories. But they weren't enough for everyone. People spent the winter in boiler rooms, in the pump house, in dugouts—everywhere where they could somehow warm themselves at night.

Frosts closed the river early. Navigation on the Irtysh ceased. Namely, the waterway mainly ensured the delivery of large structures, long materials, bricks from Semipalatinsk - fast, with minimal fuel consumption. When navigation stopped, all delivery was carried out by road. The operation of roads and cars has also become more difficult. The harsh winter of East Kazakhstan dictated its conditions. In order to somehow speed up the construction of residential and industrial premises, specialists were involved in their acceptance, and these premises were to be put into operation. This achieved an improvement in the quality of work, reduced

number of imperfections.

But the main object, in the name of which all this gigantic construction unfolded in the wild steppe, was the zone

called an experimental field, that part of the territory on which tests of a secret military product were to take place. Preparing for these tests, it was necessary first of all to equip the military unit with the necessary personnel. And the preparation of the field itself for testing had to be carried out by specially trained people, high-class professionals, specialists in various fields of military affairs. Therefore, it was urgently required to staff the team of the experimental field with intelligent, knowledgeable people.

After a thorough study of the tasks and responsibilities that were assigned to the employees of this unit, the functional principle prevailed. By the end of 1948, the staff of the experimental field included three sectors: physical measurements, biological and weapons, and each of them consisted of laboratories (in various documents they were called either departments or departments). The sectors and laboratories were staffed by well-trained specialists and headed by eminent specialists in their respective fields. This is how the work on staffing the field with qualified personnel was built. Some heads of laboratories had scientific degrees. However, the case was so new that everyone needed to improve their knowledge.

Therefore, the second most important task of preparing for the upcoming tests of the atomic bomb was to arm the personnel of all

units with knowledge about the equipment involved in the tests, and methods for measuring new parameters corresponding to the bomb.
The Institute of Chemical Physics (ICP) of the USSR Academy of Sciences, headed by Academician N. N. Semenov, became the main base for training the personnel of the sector of physical measurements. The scientific director of the training of officers of the most experienced field was the deputy director of this institute, M. A. Sadovsky. The training of personnel was carried out by specialists from the Institute of Chemical Physics O. I. Leipunsky, I. L. Zelmanov,

G. L. Shnirman, P. A. Yampolsky, V. B. Miller and some others. The same specialists became scientific supervisors of the corresponding laboratories of the sector. Specialists from the State Optical Institute, headed by Professor M. A. Elyashevich, were also involved in the training of officers.

The main center for the training of employees of the biological sector was the Main Military Hospital. Burdenko.

Employees of the armaments sector prepared for the tests on their own, directly at the landfill.

The training of specialists in the sector of physical measurements was facilitated by the fact that by that time a nuclear reactor was already operating in Moscow in the laboratory of measuring instruments of the USSR Academy of Sciences (the future IV Kurchatov Institute of Atomic Energy). This reactor produced gamma sources of artificial radioactivity, cobalt and cesium. These sources were brought to the Institute of Chemical Physics. Radioactive sources were placed in lead containers. They were transferred from storage to laboratories, removed from containers and installed in the required place. And so several times a day. The employees had few rooms, sometimes they had to work in the same room where the calibration of instruments took place. Naturally, with such "safety precautions" it was impossible to avoid radiation. And although the radioactive sources were rather weak, a dose of 0.05 to 0.1 roentgen was accumulated per day. Meanwhile, the laboratory staff not only were not afraid of exposure, but even flaunted it.

“Once one of the employees, ” recalled A. I. Khovanovich, who worked at the laboratory at that time, “discovered that the sealing was broken in the ampoule of one of the radioactive sources. We decided to clean and rinse its surface. This operation was entrusted to a laboratory employee and me. The most primitive means of protection were used: someone's old trousers, a bathrobe, for lack of rubber gloves -. condoms. I don't remember what dose we got

but the number of leukocytes in the blood fell from 6000 to 3500. The doctor of the institute's radioactive safety service demanded that we regularly donate blood for tests and go to her for examination, but when we saw her, we usually hid somewhere”11 .

But be that as it may, by the beginning of 1949, the training of the field staff was basically completed and all the specialists, as well as the necessary equipment for work, were concentrated at the training ground.

As before, housing remained the most acute problem with the onset of cold weather. If the builders by the autumn of 1948 had already prepared at least some housing for themselves (mostly dugouts), then the arriving employees of the experimental field found themselves in a difficult position. The fact is that the main construction work in 1947-1948 was carried out at the nearest railway station Zhana-Semey, where a modern airfield was built, and on the experimental field itself. At the same

time on the banks of the Irtysh, in the headquarters town, called "Bereg", by October 1948, only two residential buildings, two two-story laboratory buildings, a unit headquarters building, a vivarium for experimental animals and a pathoanatomical laboratory building were built. Therefore, the specialists who arrived lived in tents - even the dugouts of the builders were a dream for them. Only after the report of B. M. Malyutov at the General Staff and a heated discussion there with the Marshal of Engineering Troops M. P. Vorobyov, who was in charge of the construction of Training Ground No. 2, did the personnel of the experimental field manage to win over the laboratory buildings for wintering, which, of course, had very little in common with residential premises.

During the preparation and conduct of the first atomic explosion, an emergency, strict regime for maintaining the secrecy of work was established at the test site. All official records were kept in registered notebooks, which were kept in suitcases, sealed with a personal seal and at the end of the working day deposited with the secret department. Major General V. A. Bolyatko every time

visiting the laboratory, he himself examined the drawers of the desks, checking whether any papers with notes were left in them. There was not a single case of deliberate violation of secrecy or any hostile actions.

It can be rightly said that a huge team of employees of the test site, realizing all their responsibility for the successful solution of a task of national importance, worked for the sake of its implementation, sparing no effort and health. There were shortcomings in the work, but they stemmed mainly from the novelty of the case. That was the generation of people.

V. V. Alekseev, who then headed the department of penetrating radiation, recalled that with such a tough regime, one day, shortly before the bomb test, he had to endure a very tense situation:

“The fact was that glass vacuum dosimeters were stored in laboratory cabinets, each in its own box, wrapped in cotton wool. They should have been applicable to determine the doses of gamma radiation in an explosion. They began to extract them for testing before installation on an experimental field. And then it turned out that glass bottles of almost all dosimeters burst. Consequently, the devices are out of order. Scandal! Reported to management immediately. The established commission conducted an investigation. With the help of a polarimeter, an internal overvoltage in the glass, formed during soldering, was detected. Suspicions of any sabotage disappeared .

In general, during the preparation of the first atomic explosion, there were many problems with the dosimetric equipment necessary to ensure radiation safety during the test. I had to start from scratch. There was simply no dosimetric equipment for working in the field. In a short time it was necessary to create such equipment for conducting radiation reconnaissance on the ground, in the area of the explosion, for aviation reconnaissance and dosimetric control of the exposure of test participants upon their return from contaminated areas. All this work was deployed on the basis

Institute of Biophysics of the Academy of Medical Sciences of the USSR under the leadership of the Deputy Director of the Institute B. M. Isaev. It was unthinkable to create new equipment in the short time frame for preparing the test site for testing. There was only one thing left: to adapt the existing laboratory samples and models for work in the field.

For radiation reconnaissance of the explosion area, two tanks were equipped with

removed gun turrets. The bottom and sides of the tanks were upholstered with lead sheets, and in front of them, measuring sensors were placed on a rod. Similarly, several cars were retrofitted. For aerial reconnaissance, dosimeters and radiometers were placed on a conventional transport aircraft. And the verification of the radiation dose received by the test participants was carried out using individual photo cassettes.

The flavor of that time is conveyed by the memories of Sergei Lvovich Davydov, at that time a major engineer who, by the will of fate, became the first person in our country to press the start button for detonating an atomic charge at the first test of an atomic bomb. The software machine (AP, as it was called at the training ground) had to have absolute reliability, since all measuring instruments were switched on at its commands. The responsibility of the one who carried out the launch increased many times over also because the only atomic charge in the country was blown up, there was no second such one yet - it was impossible to repeat everything.

Major engineer S. L. Davydov, who was appointed in May 1948 as a senior researcher in the laboratory of automation of the training ground, in the spring of 1949, with a group of colleagues on a new job, left for Semipalatinsk. Here is how he recalls his arrival at the training ground:
“We should have arrived at Zhana-Semey station, on the left bank of the Irtysh, a suburb of Semipalatinsk, but tickets, for the sake of secrecy of our trip, were purchased to Charskaya station (the junction station following Semipalatinsk).

We traveled to Novosibirsk in comfort and enjoyed the trip. The carriages are comfortable, spacious, clean and almost completely new - just appeared all-metal. We passed by ancient Russian cities: Vologda, Yaroslavl, Kirov, Penza, Sverdlovsk. With pleasure we went out to the forecourts of these cities, which in those years still retained their original appearance.

In Novosibirsk, they made a transplant. The joyful mood turned into a sad one. Old-style cars, cramped, stuffy, dusty, poorly lit. The guides, no matter how hard they try, cannot achieve cleanliness, get rid of the dust of the steppe sand penetrating everywhere. During the transfer, the female conductor carefully looked through our tickets, looked at us and said that if we did not get off at Charskaya, but at Zhana-Semey, then we should prepare for the exit even in Semipalatinsk: the train costs one minute. There was nothing left of the secret of our trip. We thanked for the warning, it was not out of place, since the employees Mamaev and Denisov had a lot of packages. They acted as the conductor advised: when crossing the Irtysh, they were already in the vestibule.

We did not stay in Zhana-Semey. Malyutov was met by the commandant, and cars were brought to the train. We climbed into the back of a truck, and we were taken around the railway station to the dugouts located on the other side of the station tracks. In the commandant's dugout, a representative of the regime service checked the special coupons issued to us in Moscow - permits for the right to enter the landfill - and identity cards. All documents were in order. We were put back into the truck and sent on our way. Malyutov and the professors drove off in a GAZ-67 military-style passenger car, which was called the "goat" here.

The dirt road ran along the left bank of the Irtysh, but did not repeat the winding outlines of the river. To the left of the road, a pole telephone and telegraph line stretched out straight as a string. It was only April 21, and for cars on

Tails of dust were already stretching for a hundred meters. If not for the side

howling wind blowing a cloud of dust to the side, the truck could not follow the "goat". Warned by our comrades, we acquired anti-dust goggles back in Moscow.

On both sides of the road stretched a monotonous sandy steppe. Around the sand. Only when you approach the shore, the eye is delighted with the greenery that abundantly covers the floodplain of the river, and behind the river on the right one could see not very dense pine groves. To the left, it was bare to the very horizon, where the contours of the mountains appeared in the haze. In some places there were last year's plots cultivated for millet, adobe camps destroyed and abandoned by the owners, and burial grounds came across. The "old-timers" of the test site, who were traveling with us in a truck, explained that the indigenous people from the vicinity of the test site were evicted. Indeed, we did not meet a single Kazakh on our way. So we reached the Nagan (Shagan) River, a tributary of the Irtysh. It was equipped with a heating point for recreation, especially necessary in winter. It was also possible to refuel cars here. The point was serviced by soldiers of the road repair unit.

After a short warm-up, we moved on. The same bleak picture. They began to get tired of the monotony when three frail, lonely pine trees appeared to the left. Chekhov's phrase comes to mind: "Who put them up and why are they here?" ("Steppe"). "Old-timers" recommend saying goodbye to them, as the last representatives of the flora. There will be no more trees. It becomes sad from such a warning, and we see off with our eyes the trees gradually disappearing from sight.

Finally, there is a fence of three rows of barbed wire ahead. We hear the word "Limonia" pronounced with bitterness. The truck stops in front of the barrier. Nearby is *a guardhouse: a checkpoint (checkpoint). Quite young soldiers and a representative of the regime service check our documents, compare them with the list, and let us through the barbed wire one by one. A truck with things is also passing by. We climb into the body and go.*

Behind the wire, the picture changed dramatically. The first thing that caught my eye - many randomly traveled highways. Some fanned out from the checkpoint, others went across, crossing one another. Everywhere scurrying back and forth trucks, dump trucks. Here and there you can see the swarming earth-moving machines. The earth is pitted with pits, trenches, in many places there are mountains of excavated sand. To the right along the coast, as far as the eye can see, stretched out a continuous row of dugouts - a town of military builders.

Tacking amid this chaos, the truck, after a few kilometers, approached a chain of rather sparsely lined two-story houses. Many of them are still under construction. The first one that caught my eye was a wooden mansion planted on the shore. Disproportionately tall, with a gabled roof, it resembled a birdhouse. There should have been three such "birdhouses" for receiving high-ranking officials at the training ground, but they limited themselves to one. Not far from the "birdhouse", also on the bank of the river, one could see a small eight-apartment two-story brick house - a "box" with an almost flat roof and balconies. The landfill command lived in the house. This is where the "goat" of Malyutov turned.

Having driven a hundred meters ahead, the truck stopped at the unfinished building of the future garrison canteen - there was no further way. Ditches, trenches, heaps of sand, logs, pipes - everything blocked the passage. It was the center of the site

"M", as they called the territory of the future residential town. To our right, on the very shore, playing in the rays of the afternoon sun, a large two-story building, just built, stretched out. It was the headquarters of the landfill. In front of the headquarters, somewhat to the side, almost opposite the dining room, there was an already completed two-story hotel for the leadership of the nuclear industry. Opposite the hotel, on the other side of the headquarters, there are *two wooden houses. Temporarily, I settled in one of the dormitory houses .*

With the beginning of 1949, the pace of work at the test site increased every day. Intensive work

was carried out in all directions, but the main object was, of course, the experimental field. They worked a lot: they laid cables from the ionization chambers to the instrumentation structures, installed various devices on the surface of the earth to protect the instruments from the damaging effects of the shock wave. After a tiring day, they spent the night right there, on an experimental field, in a huge building of an industrial workshop, which was temporarily turned into a hostel. There were no partitions inside the building; slept without choosing a place where they had to.

The experimental field was a flat boundless area of about 400 square kilometers. In the center of it was built a metal tower 30 meters high, on which the "product"20 was installed. The entire field was surrounded by a wire fence with a radius of 10 kilometers, constantly guarded around the perimeter. It was divided into sectors, which housed military equipment, weapons and various engineering structures. Along the northeastern and southeastern radii, instrumental structures ("towers") were built, in which measuring instruments and automatic high-speed optical equipment were installed. Some of the sensors and indicators were installed openly, and some were installed in military equipment and weapons.

Along the northeastern radius, the main group of animals was openly placed on the ground - horses, sheep, piglets, dogs, guinea pigs, and white mice. A large group of animals was in military equipment and engineering structures: in tanks, trenches, artillery positions, in pillboxes, as well as in two three-story houses and an industrial workshop built at a distance of 800, 1200 and 1500 meters along the northeast radius.

In the sectors reserved for one or another type of equipment, at a distance of 250 meters to 3 kilometers, aircraft of various types were installed, as well as balloons with garlands of measuring instruments lifted into the air on cables, T-34 tanks, artillery pieces, including anti-aircraft guns, and mortars, superstructures of warships,

samples of chemical weapons, models of equipment, communications, many types of food and clothing supplies, trenches, dugouts, trenches, etc., and

etc.

In the center of the field, directly under the tower, on the horizons of 10, 20 and 30 meters underground, underground galleries about 30-40 meters long were laid.

All this, when testing the first "product", not only made it possible to determine the power of an atomic explosion, its main physical parameters, but also to check the resistance to the effects of an explosion of the main types of weapons and military equipment, as well as the protective properties of various structures and tanks when exposed to damaging explosion factors on personal composition in these objects.

In preparation for an atomic explosion, much attention was paid to the program machine (AP), a device for remotely switching on the entire

measuring equipment of the experimental field and synchronous activation of the detonation of atomic charges. A lot depended on the reliability of the AP: if the machine does not work, this means the failure of the entire experiment, for which so tensely, stubbornly prepared.
Therefore, when the State Commission headed by M. G. Pervukhin arrived before testing the bomb, its members very meticulously checked the reliability and readiness of the program machine. Moreover, personal responsibility for its operation was assigned to the operator, who was supposed to press the start button, S. L. Davydov. For him, this decision, apparently, was not the most joyful. In addition, a member of the Politburo of the Central Committee of the All-Union Communist Party of Bolsheviks, Minister of the Interior L.P. Beria, arrived at the training ground. He got acquainted with the training ground and visited the command post. Beria obviously liked the AP, and he said that during the explosion he would be in the control room. His decision further increased the nervousness of the launch team, primarily, of course, Davydov. And without the presence of Beria, the situation in the control room promised to be tense. But how to force the minister to change his mind? Was
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it was decided to write a special instruction, according to which there should not be anyone in the control room during the experiment who is not directly involved in work, and that the control room should be locked from the inside with a key. The instruction that Kurchatov approved worked flawlessly: Beria did not even try to get into the control room.

But if everything worked out well with Beria in this case, this did not mean that the relations with the "authorities" always developed smoothly among the leadership of the training ground. Head of the experimental field B. M. Malyutov subsequently
wrote:

"During the preparation of the experimental field for the first atomic explosion, I had a very close encounter with the actions of the "organs" guarded by Lieutenant General L.F. Meshik. The obstacles put in place by the "authorities" when sending officers from the training ground to the supply base in Zhana-Semey ***and*** *when coordinating measurement programs forced me to express a sharp protest to Meshik about the actions of his subordinates. During one of the skirmishes with Meshik, as I remember, I told him: "You are apparently placed here in order to prevent the leakage of secret information and, apparently, only for this. We are entrusted with the task of reflecting and fixing the test results as fully as possible and at the same time prevent the leakage of secret information.If you do not trust us, raise the question of replacing us with people who enjoy your trust.And so, that is, in an environment created by the "authorities" under your care, it is impossible to work productively.*

The apogee of our skirmishes with the "authorities" was their demand, literally a week before the explosion, to release the seven heads of laboratories from their duties. This demand outraged me so much that I decided to apply directly to the chairman of the State Commission that checked the readiness of the test site, Minister M. G. Pervukhin, and ask him to intervene in this matter. To his credit, he figured out this matter and, apparently, gave at the training ground "21 .
serious scolding the senior representative of the "authorities"
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In any case, all the "suspected" heads of laboratories remained in place. But several dozen employees of the test site were nevertheless sent at the request of Meshik on the eve of atomic tests.

On the eve of the first test of the Soviet atomic bomb, the top leadership decided to hold a dress rehearsal. She was scheduled for August 27th. All services and divisions had to work in the same way as on the day of the explosion. On August 27, the preparation of instrumentation facilities began.

Rechargeable batteries were recharged, devices installed in the buildings were adjusted. After lunch, specially formed commissions began the final inspection and sealing of the structures. This procedure lasted all day and ended late at night.

In addition, it was necessary to attract a lot of people and vehicles to transport and place on the field a huge amount of weapons, property, animals. It was necessary to deploy a radiation safety service, as well as a commandant's service for recording those entering and leaving the experimental field: after all, not a single person should have been left on the field. A limited circle of people remained at the command post. According to the security conditions, from the command post it was allowed to observe the flash of an atomic explosion through darkened glasses, and then immediately, in no more than 30 seconds, manage to take cover inside the structure and not leave it until the shock wave passed. The persons responsible for the timely closing of the doors were trained to do this operation with the utmost speed. The rest of the test participants were concentrated in a waiting area outside

experimental field.

The road from the experimental field to the town on the banks of the Irtysh was blocked for vehicles, and all those leaving the experimental field were required to go through the dosimetric control point. Contamination of clothing, appliances, vehicles was checked. Contaminated vehicles were sent to the washing area, clothing and appliances were disinfected.

activated, and people passed through the showers of the sanitary checkpoint.

The dress rehearsal was successful, it was decided to schedule tests for the morning of August 29th. The day before, all the necessary equipment and apparatus for various purposes was placed at the training ground. On the same day, experimental animals were delivered to the designated places on trucks: sheep, rams, dogs, cages with small animals. Cars moved in columns and one by one. The animals were accompanied by soldiers and officers dressed in radiation-protective overalls. A high metal tower rose in the center of the experimental field. Its top was sheathed with wooden shields; windows were left in the shields to observe the initial phase of the explosion. A road led from the command post to the tower. A truck with a silencer equipped with a special protective mesh was supposed to drive an atomic charge along it. By the end of the day on August 28, everything was ready.

And then came the decisive day of testing the first atomic bomb in the Soviet Union. All participants were tense to the limit: they understood that such an outstanding event would happen today, which would go down in history forever. Management was also worried. Already at dawn, it became known that due to the likely deterioration of the weather and a possible thunderstorm, the start time of the experiment - the explosion - was postponed one hour earlier (before that, it was planned to detonate the charge at 8.00, that is, at 5.00 Moscow time). Half an hour before the explosion, S. L. Davydov pressed the start button: the mechanism for preparing for the explosion came into action. A minute before the charge was detonated, the main button was pressed at the command of I.V. Kurchatov.

Here is how Davydov describes these anxious minutes, or rather seconds:
"From the loudspeakers came: "There are five, four, three, two, one, zero!" I barely had time to report on the issuance and passage of commands. Management did not respond to reports. According to Denisov (a colleague of S. L. Davydov. - *A. O.), I turned terribly pale. And suddenly Chugunov (representative*

commission on AP) an electric arc broke out on the remote control. A second of thought and

Chugunov turned off the batteries. The arc went out.

There was a pause... Everyone is silent... The AP continues to work out the 40 seconds allotted to it... Has there been an explosion? We look at each other with concern and hope. But behind the door there was a noise of people running in, fuss at the locked door, joyful voices, shouts of "Hurrah!". And here are two powerful slaps on the roof of the casemate, as if a giant genie released into the wild gave a friendly pat on the shoulder. The pain in the ears is growing, but no, not strong. The shock wave has passed. Almost silently congratulated each other .

As eyewitnesses of the explosion recall, a wall of dust several kilometers high and just as long stood above the experimental field. Nothing could be seen, except for a few nearby structures. What he saw struck not with beauty, but with the enormous scale of the phenomenon.

When the shock wave passed, it was time to check the results of the experiment. The first to leave on the field was the Deputy Minister of Health of the USSR A. I. Burnazyan on a tank specially equipped with lead protection. He had a scheme of structures located along the northeastern radius of the field. Passing by the structures, Burnazyan had to fire a green or red rocket, depending on the absence or presence of radioactivity. However, the tank passed the lines of 10,000, 5,000, 3,000 meters, and only green rockets took off. Finally, a red rocket is fired at 1800 meters, indicating that radioactivity has appeared. This also meant that it was allowed to leave the field.

Following Burnazyan, two more tanks, sheathed with lead shields, drove onto the field. They were led by Major General A. M. Sych and Colonel S. V. Forsten. Tanks crossed the epicenter of the explosion and measured the radioactivity on the field. Immediately, a group of intelligence officers of the security service fenced off the borders of the danger zone with flags. Then, groups of specialists examined the results of the impact of the explosion on equipment, weapons, engineering structures, buildings, and the stomach.

nyh. After that, the leaders of the atomic project, I. V. Kurchatov, A. P. Zavenyagin, and their employees drove across the field.

During the control of the consequences of the explosion, tragicomic cases also occurred. So, for example, during the evacuation of animals from the experimental field, one of the soldiers, seeing a bar of chocolate, slowly ate it. However, at the decontamination point, it was noticed that the soldier was more radioactive than normal. They took off all his clothes - the same thing. Where is the radiation source? When they brought the radiometer to the stomach, the source was revealed. The soldier was sent to the hospital, where he underwent multiple gastric lavages for several days. A few days later he was discharged from the hospital: nothing happened. But there are also late consequences.

An hour and a half after the explosion, when the dust on the field cleared, it became clear that neither the tower in the center of the field, nor the residential buildings in which the personnel had lived for several months, nor the industrial workshop was gone. Only pillars of black smoke rose from burning oil depots. Burning mangled planes, a railway bridge thrown from its supports, and destroyed buildings were visible. The sand within a radius of several hundred meters turned out to be strongly melted. Mutilated tanks, guns, and other military equipment were lying around. Some vehicles were thrown tens of meters away from the place where they were placed.

The results of an atomic explosion, its impact on military equipment, engineering fortifications, the different nature of the structure, the animals that were on the territory of the test site, the levels of penetrating radiation - all testified to success. The experiment showed (although not in all respects) that an atomic explosion corresponds to theoretical concepts, and therefore opens

way to the creation of more powerful types of atomic weapons. The Soviet Union became a nuclear power.

4. Science or intelligence?

On September 3, 1949, an American B-29 bomber, which made another reconnaissance flight in the northern part of the Pacific Ocean near the borders of the USSR, while taking air samples (this task was set for all aircraft that made reconnaissance flights in areas bordering the USSR) discovered increased radioactivity. Checking the sample taken led American experts to the conclusion that an atomic bomb had been tested in the USSR. The news of this caused a real shock in Washington. The analysis of radioactive samples by the Americans showed that weapons were tested on a plutonium basis and modern design.

"The probability that this is something else (i.e., not an atomic explosion. - *A. O.), - subsequently wrote the chairman of the atomic energy commission Lilienthal about his first reaction to the news of the Soviet atomic bomb, - is categorically brushed aside - Robert Oppenheimer absolutely certain ... The feeling in the stomach: this is what we have been afraid of since January 1946, since the first meeting of our advisory group ... "President G. Truman* and Secretary of Defense L. [23]
Johnson, shocked by the failure of predictions and calculations government services, hardly believed the facts. Still would! After all, the Joint Chiefs of Staff assured the President in 1946 that "any great power that starts from scratch and has the information that is now available will be able to achieve this goal within 5-7 years if it receives assistance in the supply and use of specialized equipment and machine tools from the nations most capable of producing atomic charges, and in a period of 15 to 20 years without such outside help. And now, instead of 20 years, after some 3 years, atomic weapons appeared in the Soviet Union. Despite the fact that the president received information about atomic tests in the USSR on September 12, he did not dare to announce it immediately. Only on September 23 did G. Truman report to the Cabinet and

throughout the country about the event. According to D. Lilienthal, the Soviet test "radically changed the situation."

But Washington did not want to believe it. Even when Truman was given irrefutable data on September 19, 1949 about the appearance of an atomic bomb in the USSR, he was skeptical about this. He asked each of the members of the special commission on atomic energy to give their personal confirmation that the Russians "really could do it." He did his best to avoid making an official statement about the atomic bomb tests in the USSR, although there were already signs that this news, in addition to the White House, would be leaked to the press. He is known to have asked Lilienthal if he was sure "the Russians really have the bomb?" Lilienthal confirmed this fact. Truman's advisers insisted that the president publicly acknowledge the presence of atomic weapons in the USSR. And only on September 23, almost a month after the atomic explosion at the Semipalatinsk test site, he told the world: "We have evidence that a few weeks ago an atomic explosion was carried out in the USSR." It was a heavy blow to the American establishment.

In the USSR, on September 25, an official message was published:

"On September 23, US President Truman announced that, according to the US government, an atomic explosion had occurred in one of the last weeks. At the same time, a similar statement was made by the British and Canadian

government.

Following the publication of these statements in the American, British and Canadian press, as well as in the press of other countries, numerous statements appeared that sowed alarm in wide public circles.

In this regard, TASS is authorized to state the following:

In the Soviet Union, as you know, construction work is being carried out on a large scale - the construction of hydroelectric stations, mines, canals, roads, which necessitate large-scale blasting using the latest

technical means. Since these blasting operations took place and are taking place quite often in different parts of the country, it is possible that this could attract attention outside the Soviet Union.

As for the production of atomic energy, TASS considers it necessary to recall that back in November 1947, the Minister of Foreign Affairs of the USSR V. M. Molotov made a statement regarding the secret of the atomic bomb, saying that "this secret has long ceased to exist". This statement meant that the Soviet Union had already discovered the secret of atomic weapons, and they had these weapons at their disposal. The scientific circles of the United States of America took this statement of V. M. Molotov as a bluff, believing that the Russians would be able to master atomic weapons no earlier than 1952. However, they were mistaken, since the Soviet Union mastered the secret of atomic weapons as early as 1947.

As for the anxiety spread on this subject by some foreign circles, there are no grounds for alarm. It should be said that the Soviet government, despite the fact that it has atomic weapons, stands and intends to stand in the future on its old position of unconditional prohibition of the use of atomic weapons.

With regard to control over atomic weapons, it must be said that control will be necessary in order to verify the implementation of the decision to ban the production of atomic weapons"24 .

It must be said that the leadership of the USSR was alarmed by Truman's statement of 23 September. How do Americans know about our atomic explosion? So, there were their agents at the training ground? Only convincing explanations from scientists convinced the Kremlin that the fact of an atomic explosion could be determined by taking air samples hundreds of kilometers from the site of the explosion.

Be that as it may, the TASS statement was received by the world community with conflicting feelings. This was considered by many to be a step that put an end to the threat of atomic war. It is no coincidence that the famous American

In the early post-war years, the Soviet politician H. Kissinger wrote: "The Soviet Union had another advantage in the early post-war years: the growing conviction of the public in the non-Soviet part of the world ... that a nuclear war was an incredible catastrophe" 25 .

What about Washington? There, the TASS report caused a storm. The militant part of the public demanded the immediate unleashing of a preventive atomic war against the USSR. However, the war did not happen: it turned out that the United States would not be able to win such a war, even deliver the first tangible blow to the USSR. At the end of 1949, the US had 840 active strategic bombers capable of carrying atomic bombs, and about 250 bombs themselves. Of course, even such a quantity of nuclear weapons was impressive, but the performance characteristics of carrier aircraft made it possible to reach Moscow, Leningrad and other cities in the European part of the USSR when operating from air bases in England and other countries of Western and Southern Europe. However, at that time they

was clearly not enough, and most importantly, now it threatened the Soviet atomic strike of the Western European allies of the United States, and this to a large extent changed the world situation.

The news of the appearance of the atomic bomb in the USSR excited the whole world, and, of course, America in the first place. The version immediately developed that the Soviet Union, with the help of its agents, was able to obtain the secrets of the American "Manhattan Project" and quickly create a similar bomb. They remembered the major international scandal of 1945. Then Igor Gouzenko, a cipher clerk at the Soviet embassy in Canada, asked the Canadian government for political asylum and handed over to the Canadian police information about a network of Soviet intelligence officers who were working to reveal American atomic secrets. A series of arrests followed, and ultimately the Western services got on the trail of the Soviet "super spy", as he was called, the physicist Klaus Fuchs, who worked at Los Alamos.

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Since then, the theme of Fuks as the man who ensured the success of the Soviet Union in creating its own atomic bomb in a short time has not left the pages of military and scientific historical literature. According to numerous versions, the role of Soviet scientists - I. V. Kurchatov, Yu. B. Khariton, A. B. Zeldovich, as well as the creators and organizers of the nuclear industry - was minimal, and the role of intelligence was the main one.

Indeed, our first bomb, detonated at the test site under Semipalatinsk, was a copy of the American bomb.

In this regard, a question arises that still causes controversy: who played the main role in the creation of atomic and then hydrogen weapons in the USSR: science or intelligence? When in 1992 academician Yu. B. Khariton was asked if it was true that the first Soviet atomic bomb was a twin of the first American, he replied: “Our first atomic bomb is a copy of the American one, and I would consider,” he added, “any other action at that time unacceptable in the state sense. Deadlines were important: whoever possesses atomic weapons dictates political conditions." Then the correspondent asked the academician:

“Who is this person who gave the bomb diagram?

“Klaus Fuchs,” the scientist replied. “ After his trial, this story became well known in the West. With us, it was hidden without much meaning, even in scientific circles it was somehow not customary to talk about it.

Fuchs, whose existence, of course, we did not know then, did a great job, allowing us to speed up the work. Of course, everything needed to be checked, calculated, since the message could be cunning disinformation. In the end, they made sure: everything is correct, and reproduced the product. I repeat: we had no right to do otherwise.

- And without Fuchs, would you have come to such a result?

— Absolutely. There were also ideas that required advancement in more advanced directions, but all this took time .

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Indeed, the situation that had developed by the middle of 1949 forced us to hurry. The Americans already had more than 250 atomic bombs and 840 aircraft - carriers of these weapons. In addition, in the spring of the same year, the NATO military-political bloc was created, directed against the USSR. At the same time, the Soviet Union had neither the atomic bomb nor the means to deliver it to the American continent. The approaching victory of the communist forces in China further exacerbated the situation in the world. The Soviet Union urgently needed to find an adequate response to the likely threat of an atomic attack, and such plans in the United States were already being developed, refined and improved.

But all this does not mean at all that only penetration into American atomic secrets gave the USSR nuclear weapons. No! In the closed "atomic city" near Nizhny Novgorod - Arzamas-16 (the city of Sarov), employees of the team of Yu. . These bombs turned out to be several times lighter than the American ones and, moreover, several times more powerful and had an original fuse that was completely different from the American one. But the unfolding "cold war" demanded a response to the American challenge.

The Soviet government, and in the first place, I. V. Stalin and L. P. Beria (the leader of all work on the atomic problem in the USSR) insisted on the speedy creation by the Soviet Union of its own atomic weapons. Therefore, the scientific team of Yu. B. Khariton was forced to slow down work on their own projects in order to immediately recreate the American bombs already tested in Alamogordo, Hiroshima and Nagasaki.

Without that serious scientific and production base that was created in the work on atomic weapons in the USSR in the 30-40s, any data obtained by intelligence officers would have been useless.

This, of course, does not mean that that intelligence was not valuable. No, their role is very important in the implementation of the Soviet uranium project. Important, but not decisive.

About ten years ago Academician A.P. Aleksandrov said:

"... Neither Kurchatov nor the other project participants hoped for other people's ideas - looking for theirs. By the time the discovery of the neutron and the fission of uranium cleared the path to the practical mastery of atomic energy, our research in this area was already at the world level. They were conducted in their laboratories by I. V. Kurchatov, A. I. Alikhanov, L. A. Artsimovich, P. I. Lukirsky - in the Leningrad, K. D. Sinelnikov - in the Kharkov Physicotechnical Institute. By the way, Soviet scientists had other, more reliable sources of information, intelligence data. Knowing the latest - before the curtain of secrecy fell - the work of a major foreign researcher and not finding his name in scientific publications (which means he did not change the area of \u200b\u200bhis scientific interests), it was not difficult to determine that he was moving in the same direction and that this direction is being tested in secret atomic work"21 .

In the same interview, A.P. Alexandrov recalls:

"The first job that Kurchatov entrusted to me was *the thermal diffusion separation of isotopes. There was nothing tricky about this technology. Even before the war, according to German publications, it was reported at the Fiztekhov seminar. And this Kurchatov, apparently, sunk into the memory.*

I objected: "But at the same seminar, Artsimovich suggested other, more promising ways of separation." Igor Vasilyevich said that he would try different ways. I say: "But why do something that is not needed?" - "And the devil knows what will be needed. Just in case, we must go this way too." - "So after all, large energy costs, it will be very expensive." "Now it's not up to the price!"28 .

As it turned out later, the Americans followed this path. They built a thermal diffusion plant, and it worked for them. And in the Soviet Union, although they made a rather large installation at one of the Moscow power plants, where they conducted experiments and achieved

isotope fission, but abandoned this method because they found a more efficient one.

The problem of obtaining ultrapure graphite was also extremely important, over which, under the direct supervision of Kurchatov, many scientists fought at that time. (By the way, the German "uranium project" just failed because Heisenberg rejected graphite as a moderator in favor of heavy water.)

So the point is not in the disclosure of the atomic secret, but in the inevitability of movement scientific and technical thought, which will not be stopped by any secrecy.

And yet, what was the role of intelligence? After all, the people who led and, most importantly, directly carried out the tasks of the Center, had to be not only professional intelligence officers, specialists in undercover work, but also well versed in physics in order to correctly assess the information, the competence of agents, send accurate answers to Moscow.

Based on the tasks assigned to it, Soviet scientific and technical intelligence could not ignore the discovery in 1939 of a chain reaction of fission of uranium nuclei, leading to the release of enormous energy - a real prospect for the creation of nuclear weapons. There was a growing danger of an attack on the USSR by fascist Germany, and she, having strong nuclear physics, could create atomic weapons in the foreseeable future. Therefore, in the fall of 1940, a directive was sent to a number of residencies to identify centers for nuclear physics research engaged in the development of atomic weapons, and to obtain reliable information from them about the progress of these works. And it was then that a person, perhaps simply unique in this area, was found, L. R. Kvasnikov - the only intelligence officer who, thanks to his scientific training, was able to correctly assess the opened prospect. He knew the pioneering studies of the nuclear fission of uranium by the Soviet physicists G. N. Flerov, K. A. Petrzhak, Yu.

After the outbreak of World War II, when the European countries were occupied by Germany, the situation for the work of our intelligence became extremely complicated, and it was not possible to deploy a new network of agents in the Third Reich. Therefore, the United States and Great Britain, countries in which most likely there could be significant progress towards the creation of atomic weapons, became the center of application of the forces of Soviet scientific and technical intelligence (NTR). In January 1941, an orientation was sent from Moscow to the New York residency that work was underway in New York, Columbia University, and the University of Minnesota to use uranium-235 energy. It was proposed to verify this information and establish whether and what kind of research is being conducted at Columbia University, which was within the reach of our residency.

As usual, there were various reports, and from them it was necessary to extract precious grains for us. Such was the information that in November 1941 professors G. Urey and J. Pegram were in London - as expected, in order to familiarize themselves with the progress of work on atomic weapons in England. But even earlier, on September 25, London resident V. Gorsky received an extensive document on the activities of the uranium committee. Its content unequivocally spoke of the development of work on the creation of an atomic bomb: data on its design ("gun-type"), on the value of the critical mass of uranium-235, on the initiator for initiating a chain reaction in it, on the production of this uranium isotope by gaseous diffusion, on scientific and industrial centers and participants in these. works.

The leadership of the NKVD, and above all L.P. Beria, took this report as misinformation, but the further course of events around the atomic weapon showed the reliability of the data obtained by the London residency.

In February 1942, front-line scouts of the Red Army seized papers from a captured German officer,
[72]
which were delivered to the scientific department of the State Defense Committee (GKO), where it became obvious from them that the German Wehrmacht intended to have atomic weapons ... In March of the same year, Beria decides to send Stalin a document compiled by scientific and technical intelligence based on information received in London back in December 1941. So, it contained an extremely important proposal to consider the question of creating a special department under the State Defense Committee to organize and direct work on the creation of an atomic bomb. After the well-known letter of G. N. Flerov and other information received from Stalin at the end of 1942, a meeting was held with the participation of academicians A. F. Ioffe, N. N. Semenov, V. G. Khlopin and P. L. Kapitsa, at which and It was decided to start creating Soviet atomic weapons and to form a special center for this purpose. And the center called "Laboratory No. 2 of the Academy of Sciences of the USSR" began its work in March 1943.

All this made it particularly urgent to set up in the United States and England an intelligence network of well-informed specialists, direct participants in nuclear programs, in a short time. The pace of solving this problem in New York and London turned out to be different. In London, an intelligence network has developed and worked since 1943. The state of affairs in New York is evidenced by a letter to the resident in June 1944, which states that “along with the presence of positive aspects in the development of Enormos (the code name for the problem of atomic weapons. - A. O.), its progress as a whole *remains* unsatisfactory . During our work on "Enormoz" ... apart from agent "D" we have nothing. "T" (Klaus Fuchs. - *A. O.)* does not count ... ”Analysis of the state of affairs in New York, [29]
undertaken by the Center for Scientific and Technical Revolution in 1944, led to the conclusion: those positive results that have been achieved in the undercover development of "Enormos" as a whole, relate mainly to the achievement of the London residency. The New York Group was instructed to ensure strong

[73]
turning point in the work on the problem of Enormosis. The situation began to improve after the organization in New York of an independent station of scientific and technological revolution under the leadership of L. R. Kvasnikov and the recruitment in 1944-1945 of several agents who had direct access to information on the development of the design of the atomic bomb and its test.

In London, the receipt of information was organized quite clearly. In addition to information about the general state of affairs with atomic weapons in the USA and Great Britain, the Center was sent information on the chemistry and metallurgy of uranium and plutonium, reactors with graphite and heavy water moderators - originals or copies of reports from American and British research centers. These materials also contained the most important data on the properties of neutrons with different energies, on refined nuclear constants, etc. In general, a certain specialization of residencies took place in itself: the New York one supplied more information about the atomic bomb itself, and the London one about the production of materials for its manufacture and on important aspects of nuclear physics. So, in the end, their joint efforts covered many significant aspects of the design and manufacture of the bomb30 .

The Center for Scientific and Technical Intelligence understood that under the conditions in which this information was obtained, it could be incomplete or already known to our scientists, or even contain incorrect information as a result of erroneous searches by Western scientists. However, its invariable merit was that

it always reflected the level of research achieved in the USA and England, as well as the ways of their practical application in a given period, and was free from disinformation. This is explained by the fact that Soviet intelligence received this information from the direct participants in nuclear development, and they cooperated with it based on their moral and political convictions, were trained in the methods of intelligence activities, verified, reliable and

acted completely disinterestedly .
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But why? Yes, because many Western intellectuals then sympathized with the ideas of socialism. Today, when it became clear that the Stalinist model of socialism, which was created in the USSR, did not justify itself, socialist ideas have lost their appeal in the world. (Although, as you know, “one rain is not yet rain,” and if, say, a person is unlucky with a wife or husband in the same marriage, this does not mean that one should not marry at all.) And then socialism still had authority in world, and before the war, and in the first post-war years: after all, the communists in the countries occupied by the Nazi Reich were in the forefront of the resistance movement.

According to the memoirs of V. B. Barkovsky, an employee of the London residency, one of the British physicists himself came to the Soviet diplomats with his data. He did not take a penny from the Chekists, nevertheless supplying information of the highest importance. In the end, Barkovsky's boss ordered at least the informant, who was obviously undernourished, to be properly fed: in England, as in the USSR, at the height of the war there was food distribution. Barkovsky lured the informant to a restaurant, but he refused food and drink, and then scolded him for being
squanders money in those days when the soldiers of his country are dying near Stalingrad32 .

Realistically assessing its contribution to the creation of domestic atomic weapons, intelligence never put its successes above the achievements of scientists, and this eliminated annoying contradictions in assessing the contribution of both sides. A. A. Yatskov, one of the main actors in the Enormous operation33, writes convincingly about this .

As you know, the GRU, our army intelligence, and not the NKGB, was mainly connected with Fuchs, and Colonel S. D. Kremer, an employee of the residency in London, began this work.
During the war years, the Soviet embassy was often visited by a German emigrant who had fled Germany, Dr. Kuchinsky. Once Kuchinsky told our ambassador I.M. Maisky that in England, in the atomic research center
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has been working since 1934 by his friend Fuchs. Maisky remarked that it would be nice to arrange a meeting with him. Kuchinsky managed to persuade Klaus Fuchs to meet with Kremer.

The meeting took place in the summer of 1942 on one of the quiet streets of London. We started the conversation in German and then switched to English. Fuchs stated that he agreed to help the Soviet Union for ideological reasons. He refused the money, noting that the British paid him well and he did not need anything. He had only one indispensable condition: his material should be on Stalin's desk in a matter of hours. Kremer did not have a direct connection with Stalin, but there was a connection with a person who visits Stalin. In short, the condition was accepted.

At the second meeting, Fuchs handed Kremer a large notebook (about 40 by 20 centimeters) filled with formulas and said: "Here is everything that your specialists in organizing work on the creation of atomic weapons need to know."

The materials were urgently sent to Moscow. Moscow confirmed

receipt and ordered not to lose contact with Fuchs.

Thus began work with Klaus Fuchs, who transmitted the most valuable "atomic information". Beria's March memorandum to Stalin was drawn up precisely on the basis of Kremer's materials. But when, after the decree of the State Defense Committee of the USSR in June 1943, the external intelligence service of the NKGB became the head organization for obtaining information on atomic weapons, information from Fuchs came already through the channels of this intelligence service.

Intelligence data played an important role in the Soviet government's decision to start developing an atomic project. Kurchatov's first reviews of intelligence materials in March 1943 show the significant significance of these data in shaping the Soviet scientific program for the creation of atomic weapons: a bet on plutonium, which can be obtained in a reactor, and on

gas diffusion method for the separation of uranium isotopes. In the future, information received from intelligence increasingly expanded knowledge of the work being carried out in the United States. At first, the attention of intelligence was focused on the design of the bomb and its tactical and technical data, but it soon became obvious that it was necessary to obtain information on the nuclear industry, and above all the one that produced fissile materials - uranium-235 and plutonium-239. The residencies in London and New York were instructed to obtain information on modern engineering solutions for such production in the nuclear industry in England and the USA. Then there was a need for information about everything that made it possible to overcome various production difficulties. For example, one of the intractable problems in the production of uranium-235 by gaseous diffusion was the sealing of moving parts and fixed joints of separation chambers due to the high aggressiveness of uranium hexafluoride.

Among the information obtained were a method for determining the critical mass of a nuclear charge, and data on the initiator of a chain reaction in a plutonium charge of an atomic bomb, and drawings of molds for casting elements of a spherical crimp explosive projectile, and even a diagram and description of the design of an American atomic bomb tested in July 1945 , in accordance with which the first domestic bomb was designed.

The reconnaissance provided valuable information about the norms of permissible radioactive exposure, the technology for manufacturing uranium rods in protective shells, and, finally, the technology for extracting uranium from ore, which was recognized as so unique and effective that within a year we built a plant based on it.

In April 1946, a detailed description of the design of the American experimental Fermi reactor was received, which played an important role in the development of the Soviet reactor, launched in December 1946. Later, in the 1950s, detailed information was obtained about powerful reactors for nuclear
submarines.

From this far from complete list of the achievements of scientific and technological revolution, it is clear how wide the range of coverage by intelligence of theoretical, experimental and technical problems of creating atomic weapons and the nuclear industry as a whole was, and how significant was the contribution of scientific and technical intelligence to their solution.

Perhaps most important to the intelligence officers was that their agents were highly competent and conscientious. Here, for example, is an assessment of their work by academician A.F. Ioffe: "... The information we received has always been accurate and, for the most part, always complete ... the presence of such a perfect source of information reduces the amount of our work for many months and

facilitates the choice of directions, frees from lengthy searches. I have not come across any false indications .

Indeed, the work was structured in such a way as to ensure maximum reliability of the information obtained. To do this, it was necessary to check and double-check the information received, compare it with data from other sources. This work required knowledge, resourcefulness, courage, the ability to take risks in extreme cases. Here is just one example, which was told by the famous intelligence historian V. M. Chikov.

Soviet intelligence agent Lona Cohen was supposed to smuggle important information from Los Alamos to Moscow. It was in 1945, shortly after the atomic bombings of Hiroshima and Nagasaki. She had to deliver to New York the representative of our residency, A. A. Yatskov, a bundle, and in it -
drawings and description of the American plutonium bomb. L. Cohen arrived in Albuquerque, a small resort town near Los Alamos. Employees of the Manhattan Project usually rested here, so in Albuquerque, special services checked the documents and luggage of passengers on trains departing from the city.

When Lona approached the carriage, a security officer began to check her luggage. It consisted of a small suitcase and a bag. In addition, in the hands of L. Cohen

there was a lady's handbag, where that bundle was located. Lona put down her suitcase and began deliberately nervously sorting through the contents of the bag, supposedly in search of a ticket. And at that moment she handed over the reticule to the conductor, who held it while she was "looking for a ticket." Moreover, when the inspection was completed, she entered the car with her things, without even taking the cherished handbag from the conductor. He himself ran after her, shouting: "Madame, you forgot your purse!" In New York, the documents were handed over to their destination36 .

In another case, as A. A. Yatskov recalls, an employee of the Soviet residency, already with information in his hands, was unexpectedly questioned by some people who introduced themselves to him as employees of the immigration service. Suspecting something was wrong, the messenger did not dare to keep the material to himself. He copied it in secret script on a newspaper between the lines and wrapped a lamp of a very exotic appearance in this newspaper. So the material was delivered to the resident.

But if the relations between scientists and intelligence officers were devoid of any friction and the interaction was well established, then the relations between atomic physicists and the Soviet authorities were by no means always cloudless. On the one hand, among the leaders who represented the state and the military department in the work on atomic weapons, there were such people as B. L. Vannikov, E. P. Slavsky, A. P. Zavenyagin, M. G. Pervukhin, who, having huge organizational experience, in the atomic problem they started, of course, from scratch, but did not hesitate to learn and penetrated quite deeply into the essence of the matter. On the other hand, those who, according to the level of knowledge and experience of previous activities, did not understand anything in atomic matters, but defiantly showed their power, if it was given to them. Many of them looked at the problem superficially: will it explode - will it not explode? Beria, to whom all the information flowed, apparently also understood the tasks of scientists and production workers in a very simplified way. For him, and most of the leaders below the rank, the consciousness of what was happening narrowed down to the actual bomb. It is unlikely that they thought about multi-purpose and

fundamental nature of research. For example, in 1945, it was Beria who imposed a ban on the idea of creating nuclear ships: first a bomb, then something else. But at the Institute for Physical Problems, even then they began to design

nuclear plant for the ship long before the American "Nautilus".

Kurchatov and his like-minded people considered the military use of atomic energy to be forced and temporary. They saw the future of nuclear energy in its peaceful application, and nuclear theory in interaction with other branches of science.

But the real leader of this case on the part of the state was B. A. Vannikov. He was the chairman of the Scientific and Technical Council for the Uranium Project under the Council of People's Commissars of the USSR, and Kurchatov was his deputy. So they determined all the current decisions. The most important decisions passed, of course, through the State Defense Committee, through Stalin, through Beria.

There were many among physicists who were seriously disturbed by the widespread persecution in the highest echelons of state and especially party power against the advanced branches of science - genetics and cybernetics. Prohibitions on research in genetics practically harmed those who dealt with the atomic problem. Reactors, plants for the processing of radioactive substances, mines for the extraction of ore were being built in the country, and physicists were waiting for recommendations from geneticists on radiation protection. Within the framework of the Uranium Project, a radiobiological department (RBO) was established. It was headed by V. Yu. Gavrilov, an experienced specialist in atomic weapons. Both young people and prominent scientists worked in the department - R. Khesin, F. Shapiro and others. All were irreconcilable opponents of Lysenko.

“We, ” A.P. Alexandrov recalled, “ *did not hide our attitude towards him. But still, they tried to make sure that our RBO did not get involved in direct battles with Lysenko. Because the department could simply be dispersed. Then we would find ourselves without hands and without brains in an extremely important matter for us ...*
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Soon after the war, it seems, in 1946 (most likely, this episode was not in 1946, but in 1948. - *A. O.), I was summoned to the Central Committee of the party and declared that quantum theory, the theory of relativity - all this nonsense. Some kind of company that I don't quite understand has gathered. Two figures from Moscow State University did their best.*

But I told them very simply: “The atomic bomb itself demonstrates such a transformation of matter and energy, which follows from these new theories, and nothing else. Therefore, if you refuse them, then you must abandon the bomb. Please, abandon quantum mechanics.” - and make the bomb yourself, 7
as you wish V .

Nevertheless, in the bowels of the Central Committee of the CPSU, a conference was being prepared on the problem of the ideological and party character of physical science, the struggle against "cosmopolitanism and idealism" inherent in a number of Soviet physicists. A meeting on the tasks of Soviet physicists was supposed to take place at the beginning of 1949, but did not take place. And the reason for this was the conversation between Stalin and Kurchatov. .

There are several versions of this conversation, but the testimony of D. V. Efremov, who at that time was deputy chairman of the State Atomic Energy Committee and directly participated in this conversation, seems to us to be the most reliable. Here is what he said:

“This meeting took place at the end of 1948 - the beginning of 1949. Stalin invited Kurchatov and me to his place and said: "Comrade Kurchatov, the Academy of Sciences is preparing a meeting to crush idealism in physics. You will have to lead this business and deliver the main report. This is very important." At that time, the Academy of Sciences was preparing such a meeting, where physicists were to speak, and Kurchatov kept trying to step aside, and, apparently, this became known to Stalin. Igor Vasilyevich said: "Iosif Vissarionovich, we have a lot of work now, and it is undesirable to distract people." Stalin insisted: "Comrade

Kurchatov, this is very important, I beg you." - "Joseph Vissarionovich, Russians, Georgians (in that order), Jews,

Armenians, Ukrainians, Tatars, many others, some of them even believe in God, but they all work, work desperately, purposefully, you can't tear them away from work. "-" Comrade *Kurchatov, idealism in physics* is *a harmful thing. Please do it the way Comrade Lysenko did it. He defeated the Morganists-Weismannists. The same thing needs to be done in physics." Then Igor Vasilyevich got up and, worried, said: "Joseph Vissarionovich, this will prevent us from ensuring that your task is completed on time." Stalin, noticing Kurchatov's condition, said: "Don't worry, comrade Kurchatov, don't worry. This (that is, the destruction of idealism) will be done later. You'd better tell me, is it possible to make an atomic tactical weapon? "... So Igor Vasilyevich saved physics from defeat" 38 .*

Stalin, apparently, quickly grasped Kurchatov's main idea: the dispute between the supporters of the exposure of "idealism", on the one hand, and "scientific cosmopolitans", on the other, is clearly a secondary phenomenon in comparison with the main task: the creation of an atomic bomb. There - philosophical and ideological disputes, here - a materially tangible result: the Soviet atomic weapon, which will dramatically change the course of the confrontation between the two social systems. Being a realist (and his supporters and enemies always recognized this), he made his choice: the bomb is more important than ideological disputes...

The attack of scientists on the atom continued. Already by the time the first atomic bomb was tested in the Soviet Union, the general line for the further work of the leading organizations in the nuclear industry was determined: to achieve a significant increase in the specific power of atomic charges while reducing their size and weight. Two main directions emerged. The first was the use of new designs of the central nuclear charge (in particular, using highly enriched uranium) and a conventional explosive charge that compresses the nuclear charge to transfer it to a supercritical state, leading to a bomb explosion. The second direction was connected with the implementation of the idea of external

neutron initiation, which made it possible to sharply increase the degree of use of nuclear materials in comparison with the old scheme of internal initiation.

Both of these schemes were proposed in 1946 by Ya. B. Zeldovich, who at that time was not yet aware of the principle of operation of the American atomic bomb. Meanwhile, the first version largely reproduced the scheme of the American plutonium bomb "Fat Man". The analysis of both schemes, made by L. V. Altshuler, showed the advantage of the second option. However, the main attention was paid to the development of the first scheme. As Alt-schuler recalled, in the autumn of 1947 he asked Yu. B. Khariton: "Why are we going for such a deliberately ineffective first option?" He replied that they were more confident in this option, because they take in advance such an amount of active material that is close to the critical mass, and then increase its density with the help of an explosive. After all, they know approximately how much explosive is needed to make the bomb work well, since they know the hatch of the American Boeing

39 .

Altshuler did not know that Kurchatov and Khariton knew the design of the "Fat Man" received from Klaus Fuchs in 1945. The situation demanded a quick result in the work on the atomic bomb - so we went according to the first option, close to the American one.

But already in 1950, the task was set to create an aviation atomic bomb weighing 3 tons and with an equivalent power of 25 kt of TNT. The weight and dimensions of the new product were set in accordance with the performance characteristics of the promising Tu-16 bomber designed at the Tupolev Design Bureau. With the same carrying capacity and flight range as the Tu-4, this jet aircraft had to fly twice as fast, which significantly increased its ability to successfully overcome enemy air defenses compared to the Tu-4.

In the same years, a serial bomb was developed, which, with a weight of 3 tons, had a power of 40 kt of TNT (in RDS-1

were 5 tons and 20 kt, respectively). Such remarkable features of the bomb were achieved thanks to a fundamentally new design of the system, concentrating the action of a conventional explosion on a central atomic charge. The bomb was designed in two versions: RDS-2 with pure plutonium and RDS-3 with a composite uranium-plutonium charge.

Great difficulties arose with the production of highly enriched uranium-235 used in nuclear charges. The task turned out to be a much more difficult technological problem than the accumulation of plutonium. And yet the problem was solved. Simultaneous development of two separation technologies -
gas diffusion and electromagnetic (under the direction of L. A. Artsimovich) -
made it possible to use uranium-235 in nuclear charges, thanks to which great savings were achieved on extremely expensive plutonium.

While scientists were creating more advanced atomic bombs, preparations for their testing were in full swing at the Semipalatinsk test site. In 1951, test explosions of two atomic bombs created by the team of Yu. B. Khariton took place.

In contrast to 1949, when the availability of plutonium was barely enough for one charge, in 1951 it was possible to test both versions of the bombs at once, each of which was made in triplicate. It was decided to first detonate the RDS-2 bomb on the tower, and then drop the RDS-3 from the aircraft.
The RDS-2 bomb was tested on September 24, 1951 under conditions close to those of the RDS-1 tests. For this, the tower and all the facilities of the experimental field at the Semipalatinsk test site were completely restored. The RDS-2 test included an essentially new element: checking the effect of an atomic explosion on the Tu-4 aircraft. He flew over the tower in such a way that the shock wave from
The explosion caught up with him at a distance of about 20 kilometers. The plane experienced a strong shock from the shock wave, but no difficulties in piloting arose.

Two weeks later, in an interview with Pravda, I. V. Stalin answered questions put to him about tests of domestic atomic weapons being carried out in the Soviet Union. Answering a question from a Pravda correspondent what he thought about the hype raised in the foreign press about atomic explosions in the USSR, Stalin said: “Indeed, we recently tested one of the types of an atomic bomb. and henceforth according to the plan of defense "of our country from the attack of the Anglo-American aggressive bloc".Further, developing this theme, Stalin stated that Soviet atomic tests should not give any reason for alarm in the USA, where it is believed that they can serve as a threat He recalled that the USSR had repeatedly proposed to ban atomic weapons and stop their production, but "each time received a refusal from the powers of the Atlantic bloc. " Perhaps, the Soviet leader said in conclusion, that

"the supporters of the atomic bomb can go for a ban on atomic weapons only if they see that they are no longer monopolists" 40 .
The main test took place on 18 October. The first aviation atomic bomb RDS-3 went to the "final exam". Its assembly, equipment and suspension to the Tu-4 aircraft (commander K. Urzhuntsev) was carried out at the Zhana-Semey airfield near Semipalatinsk. The bombing target was a highly visible white circle. A bomb dropped from a height of 10 kilometers after a minute of free flight exploded at an altitude of 400 meters at a distance of about 300 meters from the target. The crew of the plane saw a very bright greenish flash. A minute and a half after the explosion, everyone felt two jolts quickly following each other, accompanied by a strong sound: the plane was caught up first by the falling shock wave, and then reflected from the ground. There was no damage to the aircraft or crew injuries, and he confidently walked on course.

Nuclear scientists were confidently moving towards their goal. The next major step was taken three years later. Carried out in October 1954, air tests of the modified RDS-3 "I" bomb, equipped with an external neutron initiation system, showed that its equivalent yield increased to 60 kt. In the USSR, mass production of atomic bombs began.

By that time, the Tu-16 bomber, which replaced the Tu-4, had successfully passed flight tests and was already being produced in large series (70 were produced in 1954, 300 in 1956; by 1960, 1000 aircraft had been produced in total).

The Americans also did not stand still. In 1951, 12 low-power atomic bombs intended for use directly on the battlefield were tested at a test site in Nevada, and in May 1953, an artillery shell with a nuclear "stuffing".

It goes without saying that work on the creation of tactical nuclear weapons was also launched in the USSR. At the same time, the weight of the first domestic tactical air bomb was one ton, and its dimensions were chosen in accordance with the technical data of the Il-28 front-line bomber. This first domestic jet bomber, designed in 1948 at the Design Bureau of S. Ilyushin, became the most massive: about 6 thousand machines were manufactured. A significant reduction (compared to RDS-2, -3) in the size of the new bomb required a huge amount of experimentation from the creators of atomic weapons. The staff of the nuclear center reached the final stage by the summer of 1953. The bomb was dropped from the Il-28 at the Semipalatinsk test site on August 23 of the same

of the year.

Thus, in a short time, a small-sized, but huge power (equivalent to 30 kt of TNT) nuclear charge was created, which entered service with tactical aviation. Serial production of the new bomb began the following year, and it was affectionately named "Tatyana" - like the successor to the "Katyusha" of the times

war. Later, its nuclear charge was used in the warhead of the R-5M strategic missile, developed and tested under the leadership of S.P. Korolev in early 1956. On the basis of the design principles established during the development of the Tatyana, a whole family of tactical bombs of lower power was created and successfully tested in 195441 .

So, the joint efforts of scientists, intelligence officers and production workers of the USSR led to the successful solution of the most important state task - the acquisition of atomic weapons by our country.

This raises the question of the role of intelligence in the creation of the hydrogen bomb, which appeared in the USSR four years later. Moreover, in

In recent years, the domestic press has repeatedly announced that Soviet scientists themselves did nothing in this area, but got everything thanks to intelligence officers. But here is what Yu. B. Khariton said in an interview with the Krasnaya Zvezda newspaper:

"The head of the theoretical department of Los Alamos, Hans Bethe, writes that Edward Teller, who came up with the idea of a hydrogen bomb, was in despair from October 50 to January 51: the Hungarian mathematician Stanislav Ulam discovered serious errors in his work, the design was postponed.

Some of these - erroneous - materials, of course, came to us, and the intelligence officers believed that we were using them. No, we had our own, independent path to the hydrogen bomb.

- And who can be considered a "father"?

You *know, this is a very difficult question. The role of Sakharov is very great, but he himself claimed that this is a collective matter, and the greatest contribution was made by Ya. Zeldovich and Yu. Trutnev (today he is my first deputy), a number of other people. A hydrogen bomb* is *an insanely complex thing, with our poor mathematical, calculating and machine technology, it was extremely difficult to work. But we got absolutely nothing from the correct intelligence side.*

In 1952, the Americans carried out the first thermonuclear explosion, but the device was too heavy - about 60 tons.

They tested a real thermonuclear bomb on the surface of a Pacific atoll in 1954. And the first thermonuclear bomb dropped from an aircraft was ours - this is 1955 .

At first, the Americans associated the "Russian miracle" with the betrayal of Fuchs. However, they quickly figured out that this could not happen, since Fuchs was exposed and ceased his activities in favor of the Soviet Union before the development of the hydrogen bomb began in the United States. Then it was suggested, which turned into a certainty, that the Russians were able to take the products of the explosion of the first thermonuclear test in the United States in 1952, which spread in the atmosphere, and decipher them. Indeed, certain information is contained in the radioactive products of the explosion. Did Soviet scientists get useful information for the design of hydrogen weapons as a result of radiochemical analysis of atmospheric samples after a thermonuclear explosion in the USA on November 1, 1952? Scientists (and not only domestic scientists) answer this question in the negative. The fact is that the radiochemical analysis of air samples at that time in the USSR was still at an insufficiently high level and did not give useful results. And later, when such work was well organized, Soviet scientists were more interested not in radioactive elements, but in the ratio between various isotopes, from which the presence of certain nuclear and structural materials was deduced.

In 1953, Soviet atomic scientists independently prepared and tested their own hydrogen bomb, the so-called "Sakharov puff". At the same time, the bomb was being prepared for testing in a combat version. And the main thermonuclear fuel in it was completely different compared to the American hydrogen bomb.

At that time, it seemed that work on the hydrogen bomb would follow its own, domestic, path, developing the first success. However, events towards the end of 1955

unexpectedly

given it a completely different direction. Here is what A. D. Sakharov writes in his "Memoirs":

"In November 1953, V.A. Malyshev, the Minister of Secondary

mechanical engineering, and asked to submit a memorandum in which to write how I draw the next generation product, its principle of operation and approximate characteristics. Of course, I should have refused, said that such things are not done on the fly and one person; what you need to look around, think. But I had an idea, not too original and successful, but at that moment it seemed promising. I had no one to consult with. I wrote the required memorandum.

Two weeks later I was invited to a meeting of the Presidium of the Central Committee of the CPSU. The meeting resulted in two resolutions, soon adopted by the Council of Ministers and the Central Committee of the CPSU. One of them obligated our ministry in 1954-1955 to develop and test the product that I so carelessly announced ... Another decree obliged rocket scientists to develop an intercontinental ballistic missile for this charge. It is significant that the weight of the charge, and hence the entire scale of the rocket, was adopted on the basis of my memorandum. This predetermined the work of the entire huge design and production organization for many years"43 .

Scientists focused on bringing the new design to the test. By
In essence, they worked on its creation only in 1954 and early 1955.

In November 1955, a new type of hydrogen bomb was tested, the result was stunning. All other options were crossed out.

If we talk about the influence of American work on similar weapons on the creation of the Soviet hydrogen bomb, then we can definitely say that in the USSR there were no drawings or accurate data received from outside, although information received from intelligence in September 1945 about the American theory of the "classic super" had important for our scientists.
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Thus, in the creation of the hydrogen bomb, the USSR followed its own path, unbeaten by anyone, and received better results than the Americans. But that was later, and then, in the early 50s, there was a fierce competition between the superpowers: who would have the hydrogen bomb faster. In November 1952, as already mentioned, the United States tested a ground-based thermonuclear device. This device (codenamed "Mike") was detonated on Eniwetok Atoll in the Pacific Ocean. Its TNT equivalent was 10.4 million tons. But it could not yet be called a bomb, because it was too heavy for any carrier of nuclear weapons.

The Soviet Union accepted a new challenge from across the ocean. In August 1953, when everything was ready for testing the Soviet hydrogen bomb, four days before the test, the Soviet government issued the following statement:

"It is known that for a long time the supporters of the war abroad entertained the illusion that the United States of America had a monopoly in the production of the atomic bomb. Life, however, has shown that there was a profound error here. The United States of America has long ceased to be a monopoly in the production of atomic bombs. Of late, the overseas opponents of peace have found new solace for themselves. The United States of America, you see, owns more powerful weapons than the atomic bomb, and is the monopolist of the hydrogen bomb. This, apparently, would be some kind of consolation for them, if true. But it's not. The government considers it necessary to report to the Supreme Council that the United States does not have a monopoly in the production of the hydrogen bomb either .

And at the test site, everything was like during the first explosion of the atomic bomb in 1949. And the general excitement of the participants, and nervous tension in painful moments,

when the countdown of seconds before the explosion began, and the dull blow of the blast wave on the structures where the testers were located, and the joy of victory when it became clear that the test was successful.

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Participant of all tests of that time - S. L. Davydov subsequently wrote:

"We ran outside, I wanted to see the results of the explosion. The spectacle was majestic and at the same time terrible. A column of dust several kilometers in diameter rose high into the sky. The experimental field was in darkness, the sun's rays could not penetrate the dust. A grey-brown poisonous-looking cloud was spreading overhead.

The explosion was so strong that the metal pipes of the instrumental structures, located within a radius of 600-1800 meters, turned out to be bent. The destruction of experimental structures and buildings was enormous. A concrete cube on a concrete base, specially placed 500 meters from the epicenter, was torn off and thrown a considerable distance. Above the experimental field, from a column of raised dust, a huge, glowing mushroom grew up, rising to the sky. In its upper part, hot masses of gas were mixed. From below, from the ground, a black pillar stretched towards him; a white annular cloud appeared on the top of the mushroom around the cap. After a while, the mushroom began to lose its shape and slowly descend .

Those present looked at this spectacle as if spellbound. Everything seen was significantly different from the first atomic explosions. The creators of the bomb and its testers, who were aware of the unprecedented destructive power of the new weapon, were nonetheless happy for themselves that they had taken part in such an important cause for the country, happy for the creators of such powerful weapons, happy for their country. To understand their joy and pride, one must remember the international situation of that time. The Korean War had just ended, during which Washington was considering plans to launch atomic strikes on China. The confrontation between the military-political blocs resulted in conflicts and incidents. The threat of the use of nuclear weapons was in the air. And in this situation, the participants in the tests understood that our country was reaching parity with America in the development of nuclear weapons, and this was part of their work.

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The hydrogen bomb in the USSR was detonated on August 12, 1953, and a few days later, on August 20, a message from the Soviet government about the test was published in Pravda and other Soviet newspapers. It said;

"Recently, an explosion was carried out in the Soviet Union for test purposes. one type of hydrogen bomb.

Due to the implementation of a powerful thermonuclear reaction in a hydrogen bomb, the explosion was of great force. The test showed that the power of the hydrogen bomb is many times greater than the power of atomic bombs.

It is known that the Soviet Union has been in possession of atomic weapons for several years and has carried out appropriate tests of these weapons. As follows from the speech of the Chairman of the Council of Ministers of the USSR G. M. Malenkov on August 8, p. d. at the 5th session of the Supreme Soviet, the Soviet Union also seized the secret of the production of the hydrogen bomb.

This message from the Soviet Government evoked numerous responses abroad. Some foreign circles, who in their policy staked on the US monopoly in the field of the atomic bomb, and then the hydrogen bomb, are trying to frighten the peoples with the fact that the Soviet Union possesses the secret of the production of hydrogen weapons, and in connection with this cause alarm,

using it for the purposes of the arms race.

The Soviet Government considers it necessary to state that, as well as Before, there is no reason for such anxiety.

In accordance with the invariable policy of the Soviet Union aimed at strengthening the peace and security of peoples, the Soviet Government has repeatedly proposed to the governments of other countries to carry out a significant reduction in armaments and to prohibit the use of atomic and other types of weapons of mass destruction, to establish strict international control over this prohibition within the framework of the United Nations. .

The Soviet Government firmly adheres to this position even at the present time .

This message was, as it were, a touchstone of the policy of the USSR leadership towards the West. must have

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mind that it was August 1953. Half a year had not passed before Stalin died, a month ago the almighty L.P. Beria was arrested. The new leadership in the person of G. M. Malenkov and N. S. Khrushchev tried, on the one hand, to show that the nuclear power of the USSR was growing and that it was ready to oppose the USA and NATO on an equal footing (although this was not the case); on the other hand, it demonstrated a desire to build bridges in relations with the capitalist countries, to try by political means to somehow alleviate the tension between East and West, which had intensified after the victory of the Communists in China and during the Korean War.

One of the important aspects of our country's relations with Western democracies was precisely the nuclear issue. In which direction will the vector of development of nuclear energy be directed: towards peace or towards war? So far, the military direction has prevailed.

The thermonuclear explosion was the first, but not the only one in a series of tests in 1953. In the same year, new types of atomic bombs were also tested at the test site. Bombs were dropped from aircraft. There were three explosions. The series of explosions carried out was a very significant factor in overcoming the American monopoly.

This made it possible to extend the palm branch of peace to a nuclear opponent and show the world community that although the USSR possesses powerful destructive weapons, its thoughts are directed towards the peaceful use of nuclear energy.

Therefore, a month after the explosion of the hydrogen bomb at the Semipalatinsk test site, on September 18, a TASS message was published about the further intentions of the Soviet Union in this area. It said:

“In recent weeks, in accordance with the plan for research work in the field of atomic energy, several types of atomic bombs have been tested in the Soviet Union. The tests were successful. They fully confirmed the calculations and assumptions of scientists and design engineers.

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It is quite understandable that as long as the responsible US circles reject the insistent proposals of the USSR to ban atomic weapons, the Soviet Union, based on security requirements, will be forced to pay attention to the production of atomic weapons. At the same time, the Soviet Union will continue to follow the policy of strengthening peace among peoples, seeking an agreement with other countries on the unconditional prohibition of atomic, hydrogen and other types of weapons of mass destruction, a significant reduction in armaments, and the establishment of strict international control over the implementation of these decisions.

Along with this, work is underway in the Soviet Union to use

atomic energy for industrial purposes; The Soviet Union considers it its most important task to ensure that atomic energy is put at the service of the cause of peaceful progress (TASS)"47 .

After the unexpectedly rapid creation of nuclear weapons in the USSR, the West experienced a severe shock that had deep and long-term consequences of a political and psychological nature. Back in January 1950, President Truman ordered the Atomic Energy Commission to continue work on all types of atomic weapons, including hydrogen .

Since the Rubicon of the thermonuclear arms race was crossed, into which, following the United States, the Soviet Union was drawn first, and then England and other countries. A nuclear confrontation has begun.

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CHAPTER II

USA - USSR:
AIR BLITZKRIEG AND TANK MARCH

The atomic explosion over Hiroshima echoed around the planet. New unprecedented weapons have changed the face of the world. The world community was horrified by what they had done: a huge densely populated city that did not have military facilities was wiped off the face of the earth by two-thirds, 140 thousand of its citizens died in an instant. But official Washington was delighted. The news of the successful atomic attack on Hiroshima caught President Truman in the Atlantic Ocean on the cruiser August. He was returning from the Potsdam Conference. Satisfied with the success of American weapons, the President, after shaking hands with the captain of the ship, said: "Today is the greatest day in the history of the world!" He explained to the assembled officers what an atomic bomb was, and concluded his speech with the words: "The case was successful. We won the bet."
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These are the concepts used by the president of the richest country in the world. The destruction of the center of ancient Japanese culture (and Hiroshima was one of such centers) and the death of tens of thousands of its inhabitants were estimated in terms of the New York Stock Exchange. Incidentally, in 1946, when Robert Oppenheimer, the American Kurchatov, told the President that after the barbaric bombardments of Japanese cities, he and his colleagues felt "blood on their hands," Truman replied: "Nothing, it is easily washed off with water. "

But that was later, and then, immediately after the release of the "Baby", at the air base of the island of Tinian, a new one, this time a plutonium bomb, was hastily prepared for strikes against Japan. Why hurry? Because it had to be dropped before the Soviet Union went to war with Japan. If this leads to the surrender of Japan before the start of the Soviet offensive in Manchuria, then all the laurels of victory in the Pacific War will be reaped by the United States. In connection with this, the dates for the release of the second bomb, "Fat Man", were constantly being reduced: August 20, August 11, 10, and, finally, it was firmly decided - August 9.

This was due to the fact that during the Yalta Conference, Stalin promised to start a war against Japan three months after the victory over Germany. He confirmed this in May 1945, talking with the envoy of the American President G. Hopkins. During the Potsdam Conference, the Chief of the Soviet General Staff, General of the Army A. I. Antonov, at a meeting of the Chiefs of Staff of the allied countries on July 24, called mid-August the most likely date for the entry of the USSR into the war. And now the Americans were in a hurry to force the Japanese government to surrender in the first half of August.

The constant change in the timing of the second strike unnerved the participants in the upcoming operation. And the commander of the 20th Air Force, operating from the Guam Islands in Japan, General Limay, and General Farrell, and Capt.

Parsons and his subordinate officers were anxious about the reduction in time to prepare for a new atomic strike. Seemed very dangerous
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loading "Fat Man" into the B-29 bomb bay, which was supposed to be led by Major C. Sweeney. After all, Sweeney, although he was an experienced pilot, was far from the same as Tibbets, who served both as General Eisenhower's personal pilot and as a B-29 test pilot. In addition, the design of the bomb did not allow this time to equip it with a fuse in the air, therefore, the take-off promised to be very risky. Spaats, the commander of strategic aviation, and his subordinates were also nervous: strikes against secondary targets would not remove the issue of an invasion from the sea and from the air - it turns out that we need to prepare for a series of atomic raids, including Tokyo, or really for the old plan for preparing a full-scale intrusions 2 . Major Sweeney was in direct danger, flying out in bad weather on a not quite serviceable plane. He was to repeat the dropping of the atomic bomb, this time on Kokura. It was August 9th.

The pilot's bad premonitions were justified. Kokura was obscured by dense clouds. Turning around, Sweeney took the plane to Nagasaki. But here, too, visibility was zero, and mainly because of the smoke from the factories that had been destroyed in previous raids burning below. Already starving for fuel, Sweeney abandoned all instructions and approached the target using radar. At the last moment, finding a gap in the clouds, he bombed. "Fat Man", having blown up a little away from the set target, destroyed 44 percent of the city, which from time immemorial served as the gates of Christianity in Japan. Sweeney made an emergency landing at an alternate airfield in Okinawa:
he ran out of fuel.
Although "Fat Man" and under adverse conditions destroyed more than 70 thousand inhabitants of Nagasaki, the expected effect was not achieved. The atomic bomb was dropped at 11:01 a.m. on August 9, and Soviet troops invaded Manchuria at dawn on the same day. And immediately after receiving the news on the radio on the morning of August 9 that the USSR had entered the war, Japanese Prime Minister K. Suzuki convened a meeting of the Supreme Council for the Leadership of the War
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Noah. The issue of surrender was brought before the council. Suzuki told those present: "This morning's entry into the war of the Soviet Union puts us completely in a hopeless situation and makes it impossible to continue the war." Thus, it was not the destruction of Hiroshima by an atomic strike on August 6, although, of course, this had its own special significance, but the entry of the USSR into the war against Japan at dawn on August 9 forced the Japanese government to raise the question of surrender for the first time.

Japanese historian N. Rekishi writes: "Although the United States is trying to present the atomic bombing of Japanese cities as the result of a desire to hasten the end of the war, in reality, these bombs, having killed a huge number of civilians, did not lead Japan to make decisions to end the war." And he continues: "It was not the casualties among civilians as a result of the atomic bombing, but the entry into the war of the USSR that led to the speedy end of the war" 3 .

The same opinion was shared by those US military who directly led US troops in the combat zone. "The entry of the Soviet Union into the war against Japan," General K. Chennault, commander of the US Air Force in China, stated in August 1945, "

was a decisive factor in hastening the end of the war in the Pacific, which would have happened even if atomic bombs had not been used.

bombs. The swift blow delivered by the Red Army against Japan completed the encirclement which brought Japan to her knees .
This is understandable: in the conditions of a continental war, which was the nature of the Second World War, the outcome of the armed struggle was decided in land theaters. Only decisive actions against large groupings of ground forces, the destruction of enemy forces and means, could force the enemy to retreat, liberate the territories he had captured and force him to capitulate.

Nevertheless, in many historical works abroad (and in recent years in Russia) it is argued that it was the bombing of Hiroshima that caused the start of the Soviet offensive on August 9, and not on the 15th, as was said in Potsdam. But the documents say otherwise. They indicate that the troops of the Red Army, concentrated in the Far East to defeat the Kwantung Army of the Japanese, received orders to be ready for the offensive on July 25th. On August 3, immediately after returning from Berlin to Moscow, Stalin received a report from the commander-in-chief of the Soviet troops in the Far East, Marshal A. M. Vasilevsky. Vasilevsky reported that the troops were ready to launch the offensive from the morning of August 5, but he himself considers it more suitable to start the operation on August 9-10, when the most favorable weather is expected in Transbaikalia, where the forces of the Transbaikal Front, located in the direction of the main attack, are deployed. In Primorye, the rains are expected to stop by this time, and this will allow aviation to operate.

Vasilevsky's proposal was approved by Stalin. The directive for the offensive was signed by the marshal on August 7 at 4:30 p.m., that is, even before the atomic bombing of Hiroshima became known from Truman's speech .

Does this mean that the USSR played a decisive role in the defeat of Japan, as Soviet historiography has been writing about for many years? No, it doesn't. After the capitulation of Germany and the deprivation of Japan of all sources of raw materials, her defeat was inevitable. But without the USSR, taking into account the Japanese national stamina and fanaticism, the US armed forces would have to spend a lot of time (thought to be at least a year) and suffer heavy losses (up to 1-1.5 million people) to achieve complete victory.
The entry of the USSR into the war greatly accelerated the defeat of Japan, brought the end of World War II closer, reduced the destruction and the number of victims. Yes, the atomic bombings destroyed two cities, killed more than 200 thousand

lives, but the usual bombing of Japanese cities brought huge casualties (for example, on March 9, 100 thousand inhabitants were destroyed in Tokyo by conventional bombs), but all this could not break the will of the Japanese to resist. The atomic bomb could not destroy the huge Kwantung Army, ready to fanatically fight to the end on the mainland.

Nevertheless, the atomic bomb was a qualitatively new munition, marked the emergence of weapons of mass destruction, which fully compensated for the shortcomings of conventional aerial bombs with their low accuracy of hitting the target and low destructive power. The enormous power of the new weapons and, most importantly, their monopoly possession gave rise to the illusion in the US ruling circles that in the post-war period they would be able to dictate their will to the peoples of the whole world, threatening them with nuclear war. These weapons were already considered by them as a means by which they could ensure US hegemony throughout the world, and above all in relation to the USSR, even if it was a recent ally in the fight against fascism. It is widely known that the first

Truman's reaction to the successful test of the atomic bomb was, "Now I have a club against these guys." Clearly, he meant the Soviet Union. His confidence that the US nuclear monopoly would last was then unshakable.

This episode is typical. In 1946, in a conversation with R. Oppenheimer, Truman asked him: "When will the Russians be able to build a bomb?" "I don't know," replied the scientist. "I know," the president said. "When?" was the question. "Never," Truman replied.

1. "Blitzkrieg" air-atomic

“Atomic explosions over Hiroshima and Nagasaki, ” wrote General M. Taylor, “ *served as clear proof of the decisive importance of strategic bombing. Atom*

The new bomb strengthened air power with new weapons of immense destructive power and reaffirmed the belief that our air force possessed the absolute weapon that would allow the United States to impose "(American peace) on the world"6 . a kind of "Pax Americana"

On December 19, 1945, US President H. Truman officially declared in an address to Congress: "Whether we want it or not, we must recognize that the victory we have won placed on the American people the burden of responsibility for the further leadership of the world"7 .

The main carrier of the most powerful long-range bombs at that time was strategic aviation (bombers B-17 and B-29), but, as the experience of the war showed, it was vulnerable to air defense systems, and as these weapons were improved, its vulnerability increased. In addition, it did not provide surprise, as it was detected by the enemy long before approaching the object of impact. And although strategic aviation was for a long time the main carrier of atomic and then hydrogen bombs, the question of replacing it with more reliable, accurate, fast and economical means of air attack was on the agenda in US political circles and armed forces already at the end of the war. In this regard, German missiles, especially ballistic missiles, for their irresistibility at that time, seemed to American strategists a very promising weapon. It is no coincidence that the American military, who were present at the Nuremberg trials of the main German war criminals, listened with great attention to the last word of the defendant Albert Speer, the former minister of armaments of Nazi Germany. In particular, he said: Military equipment in 5-10 years will make it possible to bombard one continent from another with the help of missiles with absolute hit accuracy. Such a rocket, which would operate with the power of a split atom and be serviced by maybe only ten people, could destroy millions of people in New York in a few seconds, achieving the goal of nevi

dimo, without the possibility of knowing it in advance, faster than sound, night and day"8 .

So, by the end of the war, militaristic thinking came close to the idea of combining such a destructive weapon as the newly appeared atomic bomb with such a means of delivering it to the target as a strategic bomber or rocket. The latter to a greater extent ensured the inevitability of the blow, but was still very, very imperfect. The main attention was paid to strategic aviation.

At the same time, views on the combat use of strategic bombers in the new conditions also developed. They were based, as in the years of the Second World War, on the main provisions of the so-called Douai doctrine. Back in the 1920s, Italian General J. Due, the creator of the "air warfare" theory, believed that the Air Force alone by its actions could independently decide the outcome of the war. He reduced the essence of "air warfare" to gaining air supremacy, delivering surprise bombing strikes against the most important administrative, political and economic centers, military installations, and areas for mobilization of troops. This theory assigned the main role in a future war to bomber aircraft, which had been rapidly developing since the late 1920s . Air war theorists also considered one of the decisive factors in achieving victory to be the suppression of the morale of the civilian population behind enemy lines by air strikes. Douai wrote: "... the outcome of future wars may be the result of blows inflicted on the spirit of the population"10. He believed that "the coming war will be waged mainly against the unarmed

The memorandum of an active supporter of the "air war" of the Chief of Staff of the British Air Force, Air Marshal Trenchard, presented to the British government * on May 2, 1928, stated that the moral effect of strategic bombing is higher than the material one. The population of the enemy country will not endure mass air raids and can force his government to capitalize

11. Thus, the bombing of cities and the country's infrastructure was considered the main method of hostilities, and in strategic aviation they saw some kind of "absolute" force.

The categories of "absolute" weapons were also thought by many military men in the United States. Already during the Second World War, the ruling circles of the leading Western maritime powers increasingly relied on strategic aviation as a "weapon of victory." (By the way, these ideas are still alive today. For example, in the 1999 Yugoslav conflict, the NATO aircraft that bombed Serbia, armed with "high-precision" missiles and bombs, was presented to the world as a "weapon of democracy".)

City bombing was widely used in World War II. After the defeat of France in the summer of 1940, England found itself essentially one on one with Nazi Germany, which had occupied almost all of Western Europe. Then the air "battle for England" unfolded. Under this name, the air attack of the fascist German Air Force on Great Britain and its reflection by the British armed forces in August 1940 - May 1941 went down in history. The goal of the Nazi leadership in this offensive was to undermine the military and economic potential of their only enemy in Western Europe at that time, to terrorize the population, disrupt the government of the country and ultimately withdraw from the war.

The rulers of the Third Reich believed that aerial bombardment, combined with a naval blockade and submarine warfare, could force Britain to capitulate and at the same time create favorable conditions for an invasion of England from the sea, if necessary. Göring was an ardent supporter of this idea, who assured Hitler that the Luftwaffe would "bomb England out of the war." Berlin hoped to demoralize the population, undermine the will of the people to resist and thereby force the country to capitulate.

However, although London and other cities (Coventry, Birmingham) suffered great destruction and many casualties, the Nazis did not reach

its goal: the English people courageously continued the struggle. Goering's plan to "bomb England out of the war" failed.

But the idea of an "air war" as a decisive means of achieving victory was hatched not only by German fascism. In the British Isles, as the anti-Hitler coalition grew stronger, a plan was also brewing to strike Germany from the air with such force as to cause irreparable damage to her.

British aviation launched an air attack on German cities on September 24, 1940, when 84 bombers launched an unsuccessful raid on Berlin. In 1941-1942, the combat effectiveness of British bomber aircraft was extremely low. On average, less than 60 aircraft participated in one raid. Only in the air operations carried out in 1942 in the major cities of Germany (Essen, Lübeck, Kiel, Cologne), 200-230 aircraft participated.

As a result of these bombings, the civilian population suffered significant losses, many residential areas were destroyed, but no damage was caused to military-industrial facilities. This is evidenced by the growth in the production of the most important types of weapons in Germany in 1941-1942. So, if in 1940 the German industry produced 2,200 tanks and armored cars, 6,200 combat aircraft, 5,000 artillery pieces (caliber 75 mm or more), then in 1942 it produced 9,200 tanks and armored cars, 11,100 combat aircraft, 12,000 artillery pieces. . So the British aerial bombardment in those years did not affect the productivity of the German war industry. The well-known historian R. Jackson writes: "The strategic offensive of the (British) bomber command against Germany during the first three years of the war ended in complete failure" 12 .

However, when the Anglo-American troops began to intensify hostilities (landing in Africa, preparing

for the landing on Sicily), a plan was born for a joint air offensive against the Third Reich. At a conference in Casablanca (January 1943), a plan was developed for a joint air offensive from June 1943 to the spring of 1944 under the code name "Pointblank". He aimed by massive bombing to achieve "the progressive destruction and disorganization of the military, industrial and economic power of Germany and the undermining of the morale of her people to such an extent that Germany's ability to resist was weakened to a fatal level."

The calculation was that the massive strikes of the strategic aviation of the United States and England (the US bombers operated during the day, and the British at night) would so undermine the military and economic potential of the Reich and demoralize its population that an invasion of France would not be needed, since the bombing of German cities "will soon force Germany to kneel."

Yes, Anglo-American aviation then won strategic air supremacy on the Western Front, to a large extent disrupted the enemy's communications and command and control system in France, and created favorable conditions for the landing of allied troops in Normandy. This was a worthy contribution of strategic bombing to the course of the war.

However, there was something else. Back in 1942, Air Marshal Arthur Harris, commander of the British Bomber Command, said: “Maybe someday we will be able to direct every bomb to the target with scientific accuracy. But until we achieve this (the experience of Yugoslavia in 1999 speaks of that we have not achieved even today. - *A. O.),* we must drop streams of bombs, level the houses of Schicklgruber (Hitler. - *A.*

O.) and demoralize its workers." Thus, the principle of hostages triumphed: civilians paid for the crimes of the Nazis.

The scale of the air offensive was at first glance impressive: strategic aviation armadas behind

During the night, in 1942, the large city of Cologne was destroyed, in a raid on which on the night of May 30-31, more than 1,000 aircraft participated. The order read: "Turn the medieval center of Cologne into a sea of fire." Harris demanded of Air Marshal Portal's chief of staff: "I hope you understand this: the target of the offensive is residential areas, and not, for example, docks or factories." After Cologne were Essen (June 1), Bremen (June 25) and other German cities. The raids of 1943 became "1000 bomber" raids. From June 24, 1943, Hamburg was bombed for six days: 100 thousand citizens were killed and wounded, 300 thousand buildings were destroyed. The apogee was the bombing of Dresden in February 1945. The city, filled with refugees, without military installations, was reduced to ruins within two days. 35 thousand people died.

The same thing happened on the other side of the planet. American B-29s bombed Japanese cities. By August 1945, 63 Japanese cities had been devastated by bombardment, including Tokyo, which was destroyed on March 9 of that year. And, finally, Hiroshima and Nagasaki, on the one hand, completed the "air offensive" of the allies, on the other hand, opened a new era in the use of strategic aviation - "air-atomic warfare."

Theorists and strategists of the "second wind" of Douai's doctrine also appeared. The names of G. Arnold, W. Mitchell, A. Seversky, K. Spaats, K. Lemay flashed on the pages of the military press. Who were these people? How did they develop the concept of a strategic air-atomic blitzkrieg? Henry Arnold

(1886-1950) The first General of the Army in the history of the US Air Force during the Second World War was the commander of the US Army Air Force (ground forces). Under his leadership, in 1946, a strategic aviation formation was created as part of the Air Force, which included heavy and medium bombers, escort fighters, and, in subsequent years, strategic missile units. The following year, 1947, he substantiated the need and achieved that

that the Air Force was withdrawn from the US Army and became a separate branch of the armed forces. His book "Global Mission" (1949) on the history of American aviation became the cornerstone of the concept of the use of the Air Force in nuclear war.

The name of American General William Mitchell (1879-1936) went down in history as a major theorist of "air warfare". At the end of World War I, he commanded a Franco-American Air Force formation with 1,500 aircraft. In 1919 he was appointed assistant chief of staff of the US Air Force. He believed that the use of military aviation as an offensive type of weapon is effective only "on the scale of the entire globe." It was from this position of Mitchell that the military doctrine of the United States proceeded in the first years of the postwar period. Its basic formula is: "Just as the ship of the line was the weapon of the British world, so the aircraft will be the weapon of the American world." The aircraft meant the strategic aviation of the United States, which in the American military doctrine was assigned the role of the main strike force.

The main postulates of the US "air doctrine" were formulated by Alexander Seversky. This American of Russian origin deserves to be told in more detail about him.

Alexander Nikolaevich Prokofiev. Born into a family of hereditary nobles in

Petersburg on June 5, 1894. Seversky is a pseudonym inherited from his father, who sang under this name in the capital's operetta theater, being both its owner and director. Alexander graduated from the Naval Cadet Corps, dreamed of becoming a naval pilot. He was acquainted with the famous aircraft designer Igor Sikorsky. He studied at the famous Kachinskaya (near Sevastopol) aviation
school, but was expelled for insolence to his superiors. I had to study at other schools. In the Baltic, he received a diploma as a naval pilot.
He served on the island of Ezel, at the entrance to the Gulf of Riga, but soon got into a disaster, his right leg was amputated. He walked on crutches, mastered the prosthesis. Thanks to will and

love of life began to play golf, swim, dance, skate.

Pilot friends took Seversky on test flights, sometimes they gave him the helm. But he was resolutely not allowed to fly. There has never been such a case all over the world: a one-legged pilot. Attempts to enter military aviation did not bring success. However, he periodically flew and as a master of aerobatics became more and more famous. He was accepted by Nicholas II and allowed to serve in military aviation. So, A. Seversky became the world's first legless pilot. He bravely fought in the skies of the First World War, was awarded many orders, honorary weapons - his fame grew.

After the October Revolution, under the mandate of Lenin, he was sent as an assistant to the naval attache of the Russian Embassy in the United States. However, the embassy soon closed. Seversky remained in America. He became known in aviation circles, told the Americans about his inventions and ideas, in particular about refueling in the air, about optical sights during bombing -
in general about everything that has not found application in Russia. He was offered a position as a consulting engineer in the military department, and a year later he founded his own company, Seversky Air Corporation. Bomb sight Seversky adopted. He was given the rank of Major in the Air Force. In 1931, Seversky at his company, called the Seversky Aircraft Corporation, gathered Russian emigrants and developed with them a project for a light amphibious aircraft. He himself was a designer, and a technologist, and the president of a new company, and a pilot
tester.

For the P-35 fighter, the American army paid the company one and a half million dollars. For the first time, large-scale production of modernized Seversky P-47 aircraft was organized. During the Second World War, 196 of his P-47 Thunderbolt fighters were sent under Lend-Lease to the USSR.
By the end of the war, he becomes a military consultant to the US government. In 1945 visiting

et Hiroshima and Nagasaki to assess the atomic bombings. In 1946, as a personal representative of the Secretary of State, he was present at nuclear weapons tests on Bikini Atoll. In the same year, President G. Truman personally awards Seversky with the highest US award for civilians - the Medal of Merit.

Even during the war, he took up the development of the concept of combat use of military aviation. His main thesis was the position that the success of the use of atomic weapons depends primarily on the reliability and high combat performance of the means of delivering atomic bombs to the target. He believed that the new technology - intercontinental aviation (and in the future -
missiles), armed with nuclear weapons, makes all other traditional types of military obsolete. Thus, he became one of the founders of the US air-nuclear strategy. He said that

air power makes it possible to conduct a war on the terms of the United States, while a land war on the terms of the USSR13. A. N. Seversky died in 1974.
But if Mitchell and Seversky theoretically substantiated the concepts of "aviation doctrine", then such generals as K. Spaats and K. Limay put it into practice. Carl Spaats, who commanded the US Air Force in Europe during the war years, was a representative of a new generation of American military leaders who firmly believed in the superiority of US military equipment, professed "technological fanaticism" and the principle of "cheap war". Massive carpet bombing of the enemy's largest industrial centers - such as had reduced Dresden, Leipzig and Tokyo to ruins - they saw as the first condition for achieving complete superiority in modern warfare. The appearance of the atomic bomb made the doctrine of "victory through air supremacy" completely irrefutable in their eyes. Spaatz wrote in 1946: "The outcome of the next war will in all likelihood be decided by the use of some air power before ground forces are in

able to come into contact with the enemy in major battles "14. The atomic bomb put strategic bomber aviation as a branch of service in a very special position, and the creators of this branch of service - Generals Arnold, Spaats, Limay - were determined to use all its capabilities to establish this point of view (which even during the war had many opponents) at all levels.

General Curtis Lemay (1906-1974) in 1943-1944 commanded the 305th Air Division operating in Europe, developed the tactics of targeted bombing (as opposed to "carpet bombing") and successfully used the latest Nord bombsight at that time. In 1945 he was commander of the 20th Air Army in the Pacific theater of operations. Under his leadership, new B-29 heavy bombers were mastered, which attacked Japan. And here he developed the tactics of bombing Japanese cities. Its essence was to drop incendiary bombs on the outskirts of cities using the wooden buildings prevailing in the cities. Then the victim city found itself in a fiery ring, and high-explosive bombs were struck in the center. This method was widely used and led to the mass extermination of the inhabitants of the cities of Japan. Suffice it to say that only in one raid on Tokyo on March 9, 1945, 267 thousand houses were burned, about 100 thousand people died (more than during the atomic bombing of Nagasaki). From 1947, initially distrustful of the atomic bomb, Lemay became an ardent supporter of the air-atomic strategy, and in 1948 he headed the US Strategic Air Command (SAC). In subsequent years, three air armies (2nd, 8th and 15th) were formed in its composition. A huge fleet of heavy bombers was created. In the early post-war years, it was based on the B-29 (486 aircraft), since 1948 a modernized version of this B-50 bomber (224 aircraft) and the B-36 turboprop heavy bomber (338 aircraft) appeared. But everything

it was later, at the end of the 1940s, when the "cold war" had already gained momentum. So, for example, in 1948 in co-. The SAC had more than 1,000 bombers, some of which could carry atomic bombs.

True, there were not enough bombs all the time (in the 40s). In 1946 there were only 9 of them, in July 1947 - 13, in 1948 - 5015. Then the production of atomic weapons accelerated, and in 1949 there were already 250 atomic bombs in the USA16 .

At the same time, they were improved in the study of effectiveness in

during the test. Typical is the test of the atomic bomb on Bikini Atoll on July 1, 1946. It was decided to test the effect of an atomic explosion on warships. The target was the American battleship Nevada, which survived the Japanese raid on Pearl Harbor in December 1941, and a number of American and captured Japanese ships. Foreign experts were invited to the test, including those from the Soviet Union (M. G. Meshcheryakov, S. P. Aleksandrov, journalist A. M. Khokhlov). It was expected that the explosion would completely destroy all designated facilities and cause quiet horror in those present before the power of atomic weapons.

However, the expected effect did not work out: even the main object on which the bomb was dropped - the battleship Nevada - remained afloat. The animals that were on the doomed ships, for the most part, remained alive. Here is what the leaders of the Soviet atomic project reported to the Kremlin based on the testimony of observers and other data:
"1. The bomb exploded in the air near the surface of the water very accurately near Nevada. 2. During the explosion of the atomic bomb, the ships showed extreme survivability, therefore, the material results of the explosion turned out to be negligible compared to those expected here (in the USA. - *A. O.). 3. The general disillusionment with the results of an atomic bomb explosion in the air over very densely placed ships is replaced here by hopes of devastating results for ships from underwater explosions .*
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Apparently, information about the results of this test, along with the rate of production of atomic weapons known in the USSR, gave Stalin grounds for declaring in an interview with a Sunday Times correspondent that atomic bombs are designed to intimidate the faint of heart, but they cannot decide the fate of the war, since for this it is completely not enough atomic bombs."18 In addition, it was a response to the first threat to use an atomic bomb against the USSR, made by the American president. And here's the occasion.

During the Second World War, Soviet, British and American troops were in Iran. They were supposed to withdraw all troops from Iran six months after the end of the war, that is, by March 3, 1946.

Each great power sought to secure its interests in Iran, to strengthen its influence, to have oil concessions there. Soviet troops stood in Iranian Azerbaijan (Northern Iran) and Iranian Kurdistan: they guarded the border with Turkey. At that time, Stalin sought to surround the USSR with a belt of friendly states. In Iranian Azerbaijan and Kurdistan, under the auspices of the Soviet Union, autonomous (within Iran), pro-Soviet republics were created, which created local authorities and armed formations.

The Soviet Union needed time to create a concession and strengthen these autonomous regimes. Therefore, Moscow delayed the withdrawal of its troops from Iran. The Iranian government didn't like it. In addition, by the end of 1945, relations between the USSR and the Western powers worsened. Using the situation, Iran turned to the UN (and in January 1946 the 1st session of this organization was underway) with a complaint against the USSR, demanding the withdrawal of Soviet troops from the country. Moscow delayed the withdrawal, citing difficult winter conditions. At the same time, the grouping of Soviet troops in Iran was reinforced with mobile troops to ensure an organized withdrawal of Soviet troops in the spring of 1946.
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For this purpose, in March 1946, the 1st Guards Mechanized Division was introduced there, in which the author of these lines then served. The introduction of new Soviet units further exacerbated the situation. And then President Truman

demanded the immediate withdrawal of Soviet troops from Iran, threatening otherwise to use the atomic bomb. This is how Senator Henry Jackson, close to Truman, recalled this. During the Iranian crisis, he wrote, there was a little-known episode that the president told him about. As Truman said, in those days he invited the USSR ambassador to the United States, A. Gromyko, and demanded that the Soviet troops be withdrawn from Iran immediately (in 48 hours), threatening otherwise to use the atomic bomb. “We will not stop,” President G. Jackson quotes, “to drop it on you.”19 There are other versions of this episode (telephone conversation, communication through diplomatic channels). So it was or not - it's hard to say. But, in any case, our troops left Iran not in March, but in April-May, and only after the Iranian government agreed to the creation of a Soviet-Iranian mixed oil society and recognition of the democratic demands of Iranian Azerbaijan. (True, at the end of 1946 - mid-1947, the national liberation movement in Iranian Azerbaijan was brutally suppressed, and the Mejlis refused to ratify the agreement on the Iranian-Soviet oil society.)

Thus, the flaring up "cold war" more and more pushed the US leadership to increase its air-atomic power: strategic aviation was multiplied and improved, stockpiles of atomic bombs were built up. There was a development of concepts for the combat use of aircraft carriers of atomic weapons and plans for air-atomic warfare.

On September 19, 1945, the United States Joint Chiefs of Staff (JCNS) issued a document "Fundamentals for the formulation of US military policy", which, in particular, indicated that the United States should maintain

to adopt "overwhelmingly powerful military forces in time of peace" that are able to make it "unreasonable for any major aggressive nation to start a big war against the will of the United States." Not "attack the US", but "against the will of the US". It was an application for the role of military hegemon. "Our government, - further stated in the document, - ...should apply pressure to quickly resolve the disputed issue by political means, at the same time making all preparations in order to strike the first blow "20. The first blow to whom? The addressee was also indicated: the Soviet Union. As early as May 19, 1945, ten days after the salute in honor of the Victory thundered over Moscow, the Deputy Secretary of State USA Joseph Grew wrote: "If anything can be quite certain in this world, it is a future war between the USSR and the USA."21 Thus, already in the first months after the general victory over Germany and Japan, the US military leadership began to prepare for a war against its a recent ally, with whom, at the same time, negotiations were underway on the structure of the post-war world and the creation of common international organizations - such as the UN, international tribunals, etc.

In November 1945, a secret Joint Chiefs of Staff study was prepared, titled "Russia's Strategic Vulnerability to Limited Air Attack." The authors of this document analyzed the possibilities of a preventive nuclear strike against the Soviet Union in the event that "the Soviet Union either started aggression (in Europe or Asia), or there were clear signs that aggression against the United States was possible"22. How did they imagine the "aggression of the USSR against the United States in conditions when the Soviet Union reduced its armed forces by 1948 from 11.3 million to 2.8 million people and had neither atomic weapons nor means of their delivery.—

one can only guess. Washington strategists themselves wrote that "at present the Soviet Union does not have the ability to inflict

similar industrial destruction 116

Nevertheless, it was recommended to launch a nuclear strike not only in the event of a clear threat of "Red aggression", but also in the event that the impression was created that the USSR would eventually acquire the potential either to attack or to repel our attack24 " At the same time, it was believed that the USSR did not pose any threat to the USA. But even the creation in the Soviet Union of means of protection against an atomic attack would be a sufficient reason for the USA to drop atomic bombs on our country. Thus, the military doctrine included, moreover, unconditionally, the concept of a first strike delivered preemptively at the discretion of the United States.

Here it is necessary to say a little about the concepts of preventive and preemptive strikes. The first is planned to be inflicted on a country or a group of countries whose capabilities (economic, geopolitical, demographic, military-political, etc.) allow them to equal the capabilities of a country planning an aggressive war in the foreseeable future.

A preemptive (preemptive) strike is delivered against an aggressor country when its armed forces are already ready to attack this or that country. It is inflicted by the state on which the attack is planned. Target -
thwart an attack prepared by the aggressor country.

In the first post-war years, the USSR simply did not have the means to carry out an attack on the United States. There were no intentions. But he had at his disposal the strongest land army in the world, capable in a matter of days (in the event of US aggression) of capturing the countries that were US allies in Western Europe.

Nevertheless, the monopoly on atomic weapons and their means of delivery circled heads of Washington strategists, created the illusion of omnipotence.
Based on the experience of the atomic bombings of Hiroshima and Nagasaki, the plan in the planned war was based on atomic bombs, the carriers of which were thought to be strategically
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some bombers. This was reflected in the construction of the armed forces. The air force as a whole, and especially strategic aviation, was increasingly moving forward to a leading position among other branches of the armed forces. In March 1946, the Strategic Air Command (SAC) was created, which included 279 aircraft, including 148 B-29s. In 1947, the Air Force became an independent branch of the US armed forces25 .

The practical preparation of an atomic attack on the USSR was entrusted to the military planning committee of the intelligence committee, subordinate to the OKNSh. The Intelligence Committee soon submitted a report to the JCS. "Select approximately twenty targets suitable for strategic atomic bombing in the USSR and in the territory controlled by it" - this is the task that was set in this report, presented to the Pentagon leadership on November 3, 194526 .

When choosing targets, it was recommended to take into account the capabilities of new weapons, that is, to keep in mind the area of effective destruction of areas with a high concentration of materiel and manpower. Using atomic bombs against field troops and the transport network, according to the authors of the report, was irrational. Thus, the use of new weapons was based on the basic concepts of the Douai doctrine developed by Mitchell and Seversky: to destroy not the enemy’s military force, his troops, but civilians, cities deep behind enemy lines. The decisions adopted by the Hague and Geneva Conventions (1907, 1929, 1949) were discarded.

"The Twenty Most Profitable Targets for Atomic Bombs, " said the

report, *are industrial centers in which scientific research institutions, specialized industrial enterprises, the core of the state apparatus are concentrated. This selection will ensure the maximum use of the capabilities of atomic weapons .*

A year later, in September 1946, in the highest government circles of the United States, the document "Amerie

Kansk policy towards the Soviet Union". In it, in particular,
said:

"We must indicate to the Soviet government that we have sufficient power not only to repel an attack, but also to quickly crush the USSR in a war ... The Soviet Union is not too vulnerable, because its industry and natural resources are widely dispersed, but it is vulnerable to atomic, bacteriological weapons and long-range bombers ... The war against the USSR will be "total" in a much more terrible sense than any previous war, and therefore there must be a constant development of both offensive and defensive types of weapons .

SAC commander K. Lemay went even further. He painted a picture of a future war like this: "The United States has the ability to depopulate the vast surfaces of the Earth, leaving only insignificant traces of human activity" 29 .

Total war also required "total" coverage of the allies. The Pentagon was especially concerned that, due to the small number of atomic bombs and their carriers, atomic air strikes, although they would significantly weaken the Soviet Union, would not in themselves lead to its defeat. After the atomic strikes, the achievement of final victory rested with the ground forces of the United States and its allies, as well as the forces of the fleet, which was supposed to supply the American army in the field and protect sea lanes.
A Joint Chiefs of Staff document dated April 9, 1947, emphasized: "The areas subject to US defense commitments cover land and water roughly from Alaska to the Philippines and Australia in the Pacific Ocean and from Greenland to Brazil and Patagonia in the Atlantic Ocean. this space includes 40 percent of the land, but only 25 percent of the world's population. The Old World (Europe, Asia and Africa) covers 60 percent of the land. However, 75 percent of the population lives there ... "30

Why, then, such vast expanses of the planet were needed to fulfill the "defensive obligations of the United States"? But the fact is that when planning an air-atomic war against the USSR, the military-political leadership of the United States faced a number of problems that needed to be urgently addressed.

On December 14, 1945, the Joint Military Planning Committee issued Directive No. 432/D. "The only weapon that the United States can effectively use for a decisive strike on the main centers of the USSR are atomic bombs delivered by long-range aircraft"31
, - stated in this directive.
It was supposed to draw up a plan for an atomic attack on Soviet industrial centers with the use of about 200 atomic bombs. At that time, there were not so many bombs for the United States, but their production was accelerated in every possible way. Bomb carriers at that time could only be B-29 bombers. However, when based on the American continent,

they did not have enough range to reach the objects planned on Soviet territory (the range of the B-29 was 6,000 kilometers, while the distance from New York to Moscow was 7,505 kilometers, from San Francisco to Khabarovsk, 7,762 kilometers). Therefore, the authors of the directive proposed using air bases in the British Isles, Italy (Foggia), India (Agra), China (Chengdu), and the Japanese Islands (Okinawa) for the B-29.

The first plan for the war against the USSR was developed by the OKNSh in June 1946 (codenamed "Pincher"). The contingency plan, as indicated, assumed that the Soviet-American war would take place in 1946 or 1947 with a preliminary threat period of at least three months. The appendix to the Pincher plan, drawn up by Air Force specialists, contained planned outlines for the nuclear bombardment and destruction of 20 Soviet cities with the most developed industry, which had already been noted by intelligence officers by that time32. The list of targets included

Moscow, Leningrad, Gorky, Kuibyshev, Sverdlovsk, Novosibirsk, Omsk, Saratov, Kazan, Baku, Tashkent, Chelyabinsk, Nizhny Tagil, Magnitogorsk, Perm, Tbilisi, Novokuznetsk, Grozny, Irkutsk, Yaroslavl. The plan was considered "experimental", reflecting the Chiefs of Staff's uncertainty about the number of atomic bombs to be used to hit targets in the USSR. Doubts were aggravated by the fact that the planning of the "air-atomic" strategy was carried out without taking into account the actually available and produced in the country nuclear weapons and the combat capabilities of aviation. By the spring of 1947, according to the American Atomic Energy Commission, the United States had "not more than a dozen atomic bombs, none of which were ready for immediate use, but they were being produced at the rate of two per month"33 .

In addition, during the work on the Pincher, planners from the KNSh suddenly discovered that many Soviet cities - the targets of strikes - were beyond the reach of the B-29 bombers, even when starting from European countries. The plan noted that for the "air-atomic" offensive and the destruction of the oil-producing regions of Baku, it was necessary to use the territory of Turkey, and the inaccessibility of the deep regions of the USSR for American strategic aviation of that time required the creation of new types of bombers and air bases closer to the USSR.

Thus, the desire to launch an atomic strike on the country of socialism as soon as possible, which overwhelmed Washington theorists of atomic war, ran into technical difficulties: there were clearly not enough bombs, and the B-29 bombers, the only carriers of atomic bombs, did not have a sufficient range to hit targets. in the depths of Soviet territory. In addition, only some of them were converted and suitable for carrying atomic bombs.

There was another important "obstacle" that confused the developers of the atomic war plan. As American scientists Michio Kaku and Daniel Ak write

Selrod in the book "Winning a Nuclear War: The Pentagon's Secret War Plans", published in Boston in 1987, "even in the event of a successful nuclear attack on the USSR, the Red Army could launch a powerful counteroffensive and thereby confuse all the cards of supporters of nuclear war"34 . Therefore, the OKNSh continued to intensively develop more realistic plans for a nuclear attack on the USSR.

And so new, improved plans for an air-atomic attack on the socialist bloc began to appear every year: "Broiler"

(1947), "Grabber" (1948), "Fleetwood" (1948) and others. In these plans, the main objects of strikes were specified (and multiplied); the length of strategic bomber routes was calculated; the number of atomic bombs was determined to achieve the desired bombing effect; the minimum necessary "unacceptable" damage that the enemy will suffer as a result of an atomic attack was taken into account; ways to overcome enemy air defenses were envisaged.

In the course of this sophisticated planning for an unprecedented war, it became clear that an air-atomic attack could become effective only through the actions of aviation from forward base areas - the Ryukyu Islands (Japan), as well as from bases in England, Egypt and India, which had yet to be created. However, some objects in the USSR, even with this option, were beyond the reach of the B-29 and, even from advanced bases, could no longer return to their airfields at the start. It was decided that part of the bombers on the return route would land or simulate a "forced landing" on the territory of friendly or neutral countries.

In addition, there were disputes about which objects of impact should be considered paramount. And so, in 1948, they came to the conclusion that it was expedient to strike first of all at the "political, governmental, administrative, technical and scientific components of the Soviet state", and in particular "the key rulers of the 122

24 cities in the USSR were chosen, on which it was planned to inflict 34 atomic strikes, and the total need for defeating the USSR was estimated at 400 atomic bombs35. However, this plan was illusory, since the monthly production of atomic weapons in the United States in 1947-1948 there were only four bombs.

At the beginning of 1948, the Air Force command, which by that time already had 31 bomber carriers of atomic weapons, planned to increase the number of carrier aircraft to 120 units by November 1949. Given this rate of new B-36 heavy bombers entering service, the Atomic Energy Commission decides to increase the number of atomic bomb assembly teams from three to seven .

Meanwhile, the goals of an atomic attack on the USSR are becoming more and more concrete in the circles of the top American military-political leadership. On August 18, 1948, the top secret directive of the National Security Council No. 20/1 stated: “Our main goals in relation to Russia, in essence, boil down to just two: a) to minimize the power and influence of Moscow ... b) to introduce fundamental changes in the theory and practice of foreign policy followed by the government in power in Russia". It was primarily about weakening the Soviet Union politically, militarily and psychologically in comparison with external forces located

outside of his control . "
Here it is necessary to mention one more American statesman and military figure of that time - the first US Secretary of Defense James Forrestal. It is known that on June 26, 1947, President G. Truman signed the law on national security. This law introduced the position of the US Secretary of Defense, who now single-handedly personified the highest military authority in the country, while before this law there were two ministers: military and naval. They acted independently of each other and reported to the president. Now the Minister of Defense (before that he was the Minister of the Navy) with

concentrated in his hands the leadership of all types of armed forces: the army, the air force (recently separated into an independent branch of the armed forces) and the military

sea fleet.

James Forrestall was an ardent supporter of the war against the CCCP. He was literally obsessed with the idea that the Soviet Union was about to attack Western democracies. It was under him that a foreign policy course of aggression was formed, a preventive nuclear strike on the USSR and a constant buildup of forces to ensure American hegemony in the world. He presided over a key meeting of heads of law enforcement agencies in the town of Key West (11-March 14, 1948), where fundamentally important decisions were made. They boiled down, in fact, to one thing: to entrust the fulfillment of strategic tasks to the Air Force. The Navy also gets the right to use atomic bombs - from aircraft carriers. To increase the combat capabilities of the fleet in this area, build an aircraft carrier with a displacement of 80,000 tons. But the main thing is to give (temporarily!) control over atomic weapons to the command of the air force.

This is how this American "hawk" put his ideas into practice. But I must say, his life ended tragically. After resigning from the post of Minister of Defense in 1949, he committed suicide two months later because of a mental disorder. They say he jumped out of the window shouting: "Tanks! Soviet tanks!"...

Whatever the personal preferences of certain American politicians and military leaders, the US war machine continued to gain momentum. The Pentagon was developing more and more new plans for a future nuclear war. The air-nuclear offensive was planned to begin as early as possible, in any case, no later than two weeks after the start of the war. Since atomic strikes against the USSR were envisaged in the very first days of the war, the plan raised the question that the Air Force should have atomic bombs at its disposal in advance38. But after all, these bombs still had to be delivered to the object

there, a strike far deep in the territory of the USSR, and for this it was necessary to have enough advanced bases advanced closer to the borders of the Soviet Union. Military bases required well-equipped airfields with sufficiently long paved runways, modern navigation systems, fuel and ammunition depots, repair shops, etc. There were already large air bases in Asia and Africa, but they needed to be urgently upgraded. In addition, it was necessary to have permission from a number of governments. The Pentagon, however, was in a hurry. Therefore, for advanced basing, it was decided to use, first of all, the already existing quite modern air bases in the territories of the European allies.

In this regard, the question arose of transferring part of the strategic bombers and atomic munitions to the British Isles, from where they could be launched into the central regions of the Soviet Union.
The UK government has long sought to partner with the US in global hegemony. Back in March 1946, Winston Churchill, in his infamous Fulton speech, called for the continuation of "close ties between our military men, which should lead to a joint study of potential dangers ... and to ensure mutual security through the joint use of all naval and air forces."

bases "39. And they began to act in this direction even earlier. Already two weeks after the end of hostilities in Europe, Field Marshal Alan Brook, Chief of the Imperial General Staff, began preparing a memorandum on military measures "directed against Russia." In the first half of 1946, the Committee British Chiefs of Staff developed plans for a war against the Soviet Union with the use of atomic and bacteriological weapons.

specialists, bomber aircraft, operating from the British Isles, could strike at 58 Soviet cities with a population of 100 thousand people each, located at a distance

1,500 miles (1,700 kilometers) from England. With an increase in flight range to 1850 miles (about 3700 kilometers), aviation could hit 21 more cities in the USSR.

And now, when the atomic bomb has become the main argument in the political and military strategy of Washington and London in relation to the Soviet Union, the British government has expressed its full readiness to provide its bases for American atomic bombers. All that was needed was a suggestion. They became the so-called "Berlin Crisis" in the summer of 1948

of the year.

In June of this year, a separate monetary reform was carried out in the western occupation zones of Germany, which was also extended to the western sectors of Berlin. The economic split of Germany was carried out, vigorous activity was launched against the pro-Soviet order in the eastern part of the country. The USSR, in agreement with the authorities of East Germany, took a number of retaliatory measures. Its own monetary reform was carried out and communication between Berlin and the western occupation zones was temporarily stopped. This served as a pretext for aggravating the situation in Europe. Since the Soviet Union closed the borders with East Germany and West Berlin and blocked all railways and roads, the Western powers established an air bridge to West Berlin and at the same time transferred to the American occupation zone of Germany, and from there to the British Isles, the B-29 squadron, carriers of atomic bombs. In July, there were already 60 bombers of this type at British air bases. Threats about the use of the atomic bomb sounded again. By autumn, the situation around Berlin had practically returned to normal, but the number of B-29s with atomic bombs in England reached 90 units.

How the strategic operations of the air force against the vital centers of Russia were conceived was openly discussed in the American press of that time. The main provisions of the "war against Russia" plan were outlined by the "Newsweek" magazine in the article "White Star vs. Red Star".

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"The American strategy is to establish bases around the Russian sphere of influence, followed by air strikes, " *wrote Newsweek. —*
The United States does not intend to fight on the principle of "soldier for soldier". Napoleon and Hitler made a similar mistake and were swallowed up by Russia, which had colossal human reserves. American strategists prefer to surround Russia with an air force ring"40 .

Recalling this, British Prime Minister W. Churchill said on December 6, 1951 in the House of Commons that in 1948 the foundation was laid for the creation of "a huge and ever-expanding American air force base in East Anglia for the use of atomic weapons against Soviet Russia" 41 .

As the stocks of atomic bombs grew, the number of targets on the territory of the USSR increased. In 1948, it was envisaged to destroy already 60 Soviet cities with the help of a simultaneous massive strike of 133 atomic bombs. At the same time, 8 bombs were assigned to Moscow alone, and 7 to Leningrad. [42].
If the war dragged on, then about 200 bombs were supposed to be used against the USSR, which would lead to the destruction of 40 percent of industry and the death of 7 million people.

So, the pictures of a future atomic war against the USSR were not hidden from

the public. Widely advertised, for example, was the October 27, 1951 issue of the American magazine Colliers. He colorfully painted the US nuclear war against the USSR. “The Soviet government,” wrote Colliers, “
must change their views and policies. If this does not happen, then the day will surely come when this government will disappear from the face of the earth.
According to the Colliers scenario, the war began on May 14, 1952. Taking off from airfields in England, France, Italy, Japan and Alaska, squadrons of B-36 heavy bombers dropped atomic bombs on the most important military and industrial facilities of the Soviet Union. Daily over the Soviet territory dismantled

millions of leaflets were dropped from the air. Thousands of agents parachuted down to sabotage and destroy communications systems.

On July 22, an atomic bomb was detonated over Moscow. The magazine published the "most probable" reportage from the bomber, with a drawing of a nuclear explosion not far from the Kremlin.

Such publications strikingly coincided with the plans of the Pentagon specialists, which were still strictly secret at that time. Their purpose was to accustom the American people and the public of the capitalist world to the idea of the inevitability of an atomic war, in which the United States would undoubtedly be victorious.

However, when drawing up plans for an immediate or close atomic war with the USSR, military experts of the Pentagon in the first 5-7 years after World War II considered the only possible long-term strategy to be based on the integrated use of all types of armed forces, and atomic strikes inflicted at the beginning of the war, was seen as facilitating the further use of "other means of allied military power"43. In order to tie down the actions of the Soviet troops, it was supposed to conduct operations with the forces of the army, primarily American troops in Germany and Western Europe, as well as the forces of the fleet.

In 1949, a special committee headed by Lieutenant General X. Harmon developed for the president (reported on January 23, 1950) a top-secret report on the US's ability to defeat the Soviet Union. The report stated that if, with the help of the new B-36 heavy bombers, 200 atomic bombs could be dropped on objects in the USSR, then as a result of this strike 2.71 million people would die, 4 million would be injured, and "the life of 28 million people"44. However, even under this condition, the United States still lacked the strength to destroy the Soviet Union or prevent the Red Army and its allies from seizing

Europe and Asia. On the basis of Harmon's report, the KNS informed the US leadership that a "decisive strike" was probably not possible before the mid-1950s. The Chiefs of Staff considered it necessary that the US military industry produce 400 atomic bombs by 1953, each of which would be equal in power to the bomb dropped on Nagasaki. But why "to Nagasaki" and not "to Hiroshima"? Yes, because a more effective plutonium bomb was dropped on Nagasaki, not a uranium bomb. The "hawks" believed that if 100 of these bombs were dropped on objects in the USSR, then the goal could be achieved ...
Thus, the question of success in the war against the USSR rested, according to American strategists, in the creation of such carriers of atomic weapons that could penetrate into the deep regions of the Soviet Union and simultaneously inflict massive strikes on the industrial and administrative centers of the USSR. But in service with the United States

strategic bombers B-29, B-50 and B-36 could operate at a range of 8,000-10,000 kilometers, which allowed them to reach the central regions of the USSR, subject to departure from advanced bases located along the perimeter of its territory. Such bases already existed in many neighboring countries of the Soviet Union, but their status was not sufficiently legitimate, and they were usually very expensive. Some international guarantees were required. Consequently, it was necessary to urgently create bases not only in Western Europe, where there were occupation zones and countries allied with the United States, but also in other regions of the world. This (along with other military-political factors) could only be achieved through the creation of anti-Soviet military-political blocs. The political leaders of the United States realized that, given the balance of power that had been created, even such a powerful state as the United States alone would not be able to suppress the emerging world system of socialism by force of arms. Allies were urgently needed, and those who could form the basis of the ground forces, and above all in Europe.

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In 1949, the North Atlantic bloc (NATO) was created - a military-political alliance directed against the USSR and the socialist countries led by it. NATO united the strongest Western powers, whose influence extended almost to the entire globe. They had an extensive network of military bases. The strategic concept of this bloc was formulated in a statement by the Chairman of the US Chiefs of Staff O. Bradley on July 29, 1949, and then officially adopted by NATO. Speaking about the distribution of roles in the preparation of the war against the Soviet Union, Bradley, in particular, said:

“Firstly, the US will be responsible for the strategic bombing. We in the United States have repeatedly stressed that the first condition for joint defense is our ability to deliver atomic bombs.

Secondly, the United States and the naval powers of the West will carry out basic naval operations, including the protection of sea lanes. The Western Union and other countries will themselves provide for the defense of their ports and coasts.

Thirdly, we believe that the main core of the available ground forces will be supplied by Europe, which other nations will provide support through mobilization.

Fourthly, Britain, France and the countries adjacent to them will assume the main role in delivering bombing strikes by short-range aircraft and in air defense. We will, of course, have tactical aviation for our own land and sea forces, for US defense.

Fifth, other countries, depending on their proximity or remoteness from a possible conflict area, will focus on preparing for the implementation of relevant specific tasks .

These ideas were also reflected in the new American plan for nuclear war against the USSR (codenamed "Dropshot"), which was approved by President Truman in 1949. The plan emphasized that

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"The most serious threat to US national security is ... the very nature of the socialist order." In accordance with this, the main political goal of the war was no longer to limit the "power and influence of Moscow", as in previous plans, but to liquidate the Soviet socialist state, destroy the "roots of Bolshevism",

the restoration of capitalism and colonialism and the establishment, with the help of NATO, of American world domination. The main strategic goal was "in cooperation with our allies ... to destroy the Soviet will and ability to resist through a strategic offensive in Western Eurasia and a strategic defense in the Far East" 46 .

The plan provided for starting a war against the USSR with massive strategic air strikes against the administrative, political and industrial centers of our country, as well as areas where troops were concentrated. It was planned at the first stage to drop 300 atomic and 200 thousand tons of conventional bombs on the Soviet Union within 30 days. The authors of the plan hoped in this way to break the will and ability of the Soviet people to resist and to force the Soviet Union to capitulate. In the event that massive atomic bombings did not lead to a quick surrender of the USSR, it was supposed to continue bombing with atomic and conventional bombs.

The subsequent stages included the invasion of the US ground forces and their allies in the USSR, the seizure of its territories and the countries of people's democracy using not only atomic, but also other types of weapons of mass destruction: chemical, biological and radiological. On this account, the Dropshot plan contained an indication: "In this campaign, the emphasis is on the physical destruction of the enemy." In the future, it was planned to establish an occupation regime on the territory of the USSR, dividing the country into occupation zones with the deployment of American troops in key cities of the USSR, as well as in

a number of cities in Eastern Europe. After the defeat of the USSR and its allies in Europe, it was planned to capture the DPRK, the MPR, China and all of Southeast Asia47. Operations of psychological warfare aimed at undermining the morale of the population of the USSR were also envisaged.

In order to verify the correctness of the OKNSh calculations, the United States instructed a group of top echelon military officers to check the chances of disabling nine strategic regions at a command post exercise: Moscow-Leningrad, the Urals, objects on the Black Sea coast, the Caucasus, Arkhangelsk, Tashkent, Alma Ata, Baikal, Vladivostok. The results were disappointing: the probability of reaching the targets was 70 percent, the losses of the bombers participating in the air offensive exceeded 55 percent. 55 percent! In the whole of World War II, the heaviest losses (the strike of 97 bombers on Nuremberg on the night of March 31, 1944) did not exceed 20.6 percent of the aircraft participating in the raid. The exercise revealed a number of miscalculations in the planning and provision of the first strike, due to which the air offensive against the USSR could not be carried out at lightning speed; atomic bombings of Moscow and Leningrad could only be carried out on the 9th day of the war. At the same time, calculations showed that, for example, the bases in the British Isles would be completely put out of action by the actions of the USSR Air Force using atomic weapons in a maximum of two months. It became clear that US strategic aviation, having inflicted significant damage on the cities of the USSR, could not continue combat operations in the first strike due to the insufficient number of aircraft, bases, support and maintenance systems. And the Soviet armies by this time, according to the calculations of the participants in the exercise, will already have reached the shores of the Atlantic and Indian oceans. It turned out that the plan of war against the USSR, developed by the Pentagon, led to the loss of Europe, the Middle and Far East in the first months of the war.

Chief of Operations of the US Air Force Headquarters, Major General S.

On April 11, 1950, Anderson reported to US Secretary of Air S. Symington that the US Air Force could not carry out the entire air offensive envisaged by the plan and provide the air defense of the US territory and Alaska with the available forces49 .

In addition, the success of the planned air attack depended on the survivability advanced bases, and they could easily be put out of action by the enemy.

Then the military-political leadership of the United States focused on more promising carriers of nuclear weapons - ballistic and cruise missiles. Long-range and medium-range missiles tempted Pentagon strategists with many of their advantages over aircraft. Ballistic missiles, having a huge (1600 m / s) speed, could hit objects deep behind enemy lines in a matter of minutes. They could operate regardless of the weather and time of day; The air defense of the country on which the strikes were made could not counteract them. Equipped with autonomous inertial control systems, all components of which were placed on board, the missiles were not affected by enemy interference. Cruise missiles, despite their approach in speed and flight altitude to the aircraft, were also promising weapons: their cost compared to the aircraft was much lower, their use did not depend on weather conditions; they were small in size, which made it difficult to detect them, especially when operating at low altitudes; could be launched from the ground, from a ship, from an aircraft, and due to these qualities, in mass use, they were difficult targets for enemy air defense. In addition, both types of missiles did not require a scarce and expensive flight crew (the training of one American pilot cost about 730 thousand dollars), and their mobile versions were less vulnerable.

The plans provided for the creation in the near future of a very powerful arsenal, primarily between 133

continental and operational-tactical missiles along with strategic bombers. Immediately after the war in the United States and a number of other capitalist countries, work was widely developed to create rocket weapons based on the experience of rocket building in Nazi Germany and the use of V-1 and V-2 rockets during the war years. Captured by American troops, these missiles formed the basis for the development of American missile weapons, and German specialists brought out of Germany under the guidance of the Americans were engaged in their improvement.

Work on the creation of rockets has been carried out in the United States since 1945. Initially, the center of work was the Redstone Arsenal (Alabama), which was run by the US Army. By the 1950s, up to 400 German and American specialists were already working in Redstone. They formed the core of the missile center, in which, on the basis of the V-2, the American Redstone ballistic missile with a range of up to 300 kilometers was created under the leadership of V. Brown. Work was also underway on the Kapral missile with a range of 160 kilometers. However, these missiles could only be used to support ground forces and were completely unsuitable for strikes against targets in the depths of enemy countries, and even more so the USSR. Therefore, the Air Force independently engaged in the development of strategic missiles (range - over 5,000 kilometers) and medium-range missiles (1,000-1,500 kilometers).

To manage work in the field of creating missile weapons, the US Air Force created the Main Directorate of Scientific Research and Development in this area of military equipment. Between 1952 and 1957, the Air Force spent over $1,850 million on rocket weapons (the Army spent more than $1,260 million).

In 1953, numerous scientific councils and technical committees dealing with rocket weapons were united in the Neumann Committee (named after the German rocket specialist J. von Neumann), which established centralized control over the development of all US Air Force missile programs and received the status of consul 134

tative body under the Minister of the Air Force and the Minister of Defense. In 1954, the Ministry of the Air Force, the Department of Ballistic Missiles and the Directorate of Research and Development at the General Staff of the Air Force, the Von Neumann developed the Atlas Committee and the Ballistic Missile Engineering Corporation the contract for which was received by Convair. In 1955, the program of the ICBM "Titan" and the medium-range ballistic missile "Tor" (respectively - the companies "Martin Marietta" and "Douglas Aircraft") were launched.

Continued the development of missile weapons and the army (ground forces) of the United States. In 1954, after experimental launches of the V-2, ballistic missiles of the "ground-to-ground" class, tactical - "Kapral" - and operational-tactical - already mentioned "Redstone" - were already created and put into service at army research sites after experimental launches of the V-2. The first of them, with a range initially (1951) of 160 kilometers, and then (1953) of 240 kilometers, was developed by the US Army Ordnance Department, the second - under the leadership of W. Brown "Chrysler".

In parallel with the work on ballistic missiles, models of cruise missiles were being developed on a wide front, which at that time still continued to be called projectile aircraft.

However, the missiles of that time also had significant drawbacks: low accuracy of hitting targets. Therefore, until the beginning of the 60s, strategic aviation continued to be regarded in the Pentagon as the main strike force in the war against the USSR and its allies. But the growth of the combat capabilities of Soviet air defense, the dependence of strategic aviation on forward bases, where it could be hit by the enemy, the imperfection of the missile weapons that came into service -
all of these were essential factors that held back the militant aspirations of the White House and the Pentagon in those years. It would seem that having a monopoly on the atom 135

New weapons, the presence of significant strategic aviation forces, and the formation of the NATO military-political bloc created favorable opportunities and gave rise to hopes for victory in the war against the USSR and its allied countries.

And yet, the fear of the growing military power of the Soviet Union, the lack of a complete picture of everything that happened behind the "iron curtain" of the socialist state in the field of armaments, the fear of coming to a great continental war, fraught with the death of most of humanity - all this had a decisive influence on sane politicians of the West, forced them to restrain the "hawks", eager to destroy "world communism".

In Washington and London, they were well aware of the efforts being made in the USSR to increase the country's defense capability (although many details were not known), so balancing "on the brink of war" without crossing this line was considered the preferred policy.

2. "Tank March of the Soviets"

At a time when the Americans were reveling in their military power and

they were preparing an "atomic blitzkrieg" against the USSR, in the Soviet Union they did not waste time.
Although immediately after the end of the war, the Soviet government reduced the wartime army of 12 million to 2.8 million, the main strike forces that remained in service were concentrated in the occupation zones of Germany, Austria and Hungary. With the restoration of the Soviet national economy, much attention was paid to the improvement of the armed forces. During the 7-8 post-war years, the armed forces were re-equipped with more advanced models of automatic weapons, artillery, engineering, radar equipment and other modern types of weapons and

technology. Particular attention was paid to the modernization of tanks and aviation. Complete motorization and mechanization of the Soviet Army was carried out.

Received further development and views on the use of mobile troops and aviation. The main type of military operations was considered to be a strategic offensive, carried out by the method of successively achieving intermediate strategic goals by forces of all branches of the armed forces.

This position of the Soviet military doctrine of that time, although it was not published, was well known in the West. It was also known that the main methods of conducting a strategic offensive operation in this doctrine were considered to be the encirclement and destruction of an enemy grouping.

Thus, in contrast to the views of Washington, where priority was given to the destruction of the economic potential (which, however, was accompanied by more civilian deaths than military losses), Soviet views on war were dominated by the idea of destroying the enemy's armed forces in the first place. This is what frightened the West (which is also confirmed by the experience of the Yugoslav war of 1999), because in the struggle of land armies the losses of personnel are more significant than in a naval or air war. America and England in the 2nd World War had irretrievable losses of 375-400 thousand people; The USSR lost 27 million people, including 11 million military personnel. This was remembered in the West. Despite terrible human losses, our people restored their almost two-thirds of their destroyed economy by the end of 1947. Such self-sacrifice not only for the sake of the family and one's own well-being, but also in the name of the state (very cruel to its citizens) was completely incomprehensible to the West and inspired anxiety.

And the Soviet Union, as recently declassified documents testify, never had any plans to attack Western democracies. Counteroffensives - yes, but only as a response.

In 1946-1947, the USSR developed and approved the "Plan of Active Defense of the Territory of the Soviet Union". It defined the main tasks of the armed forces as follows: the repulse army, relying on fortified areas, must defeat the enemy in the border defense zone and prepare the conditions for the main groupings of troops concentrated on the western borders of the socialist camp to launch a counteroffensive. The Air Force and Air Defense, which are part of the repulse army, have the task of reliably covering the main forces from the air and being ready to repel a sudden attack by enemy aircraft. The troops of the reserve of the High Command are intended for crushing, using the forces of the army, rebuffing and striking at the main enemy forces, inflicting defeat on them and counteroffensive. The scale and depth of the counteroffensive were not indicated in the plan50 .

The plan did not specify, but Western strategists, knowing about the grouping concentrated on the western borders of the socialist camp, and about the striking

capabilities of the military equipment of the USSR, as well as the modest military potential of the countries of Western Europe, not without reason believed that after the Americans unleashed an air-atomic war, Soviet tank armadas would be off the coast of the English Channel in two weeks. Thus, Western Europe and the European NATO countries became hostages in the event of a war between the US and the USSR. The scenario of "World War III", directly opposite to that which was published in the magazine "Colliers", more than once struck the imagination of the townsfolk through the mass media of the Western powers.
The scheme was something like this: the General Staff of the Soviet Armed Forces receives updated intelligence about the strengthening of the European NATO grouping and signs of increasing its combat readiness. There are different sources of information: reconnaissance aircraft, an intelligence network in Western Europe, defectors, etc. The armies of the Warsaw Pact states are put on full alert. Hundreds of military vehicles take off from airfields

nyh aircraft with winged infantry on board. The task of the airborne divisions and brigades is to capture strategic objects (headquarters, communication centers, airfields) and sabotage behind enemy lines. Soviet tank armies, destroying everything in their path, make a march straight to the English Channel. Daily rate of progress up to 250 kilometers. The order is forward. Engineer troops build pontoon bridges across rivers. In the sky, the complete dominance of Soviet fighter aircraft. Bombers and attack aircraft, together with artillery, strike at the places of deployment of enemy manpower and equipment. Ground forces "cleanse" the occupied territories. Military political workers explain to the surviving local population the liberation mission of the Soviet Army.

Such "scenarios", in the absence of any argumentation, sometimes had some grounds. Thus, in the mid-1950s, Commander-in-Chief of the Ground Forces A. A. Grechko outlined a possible, in his opinion, variant of the Soviet counteroffensive in Europe and its further development: cross the Rhine on the move, take Paris on the 6th day and then move to the Atlantic ocean...51 In the West, such a development of events in the event of war was fully allowed, knowing the high combat capabilities of the Soviet troops, especially the groups stationed in the countries of Eastern Europe. The fear that atomic strikes by American aircraft on the USSR would lead to a Soviet ground invasion of Western Europe forced European politicians to restrain their overseas patron in every possible way in his militant aspirations.

An example of this is the episode with the US threat to use atomic bomb against communist China during the Korean War.
Here is how it was. October 1950 US-South Korean troops are advancing north at a rapid pace. They are already approaching the Chinese border, and on October 23 they take Pyongyang. And then a huge mass of Chinese troops (the so-called Chinese people's

tsy - CPV) rushed over the bridges across the Yalu River into North Korea on October 25. The war has entered a new phase. The Chinese offensive was long and heavy. The “volunteers” countered the dominance of the Americans in the air with trench and gallery fighting, when entire companies, battalions and regiments were so buried in the ground that neither bombs nor napalm could take them. In addition, since November 1950, the industrial facilities of Northern China, the bridges across the Yalu and the territories adjacent to the border began to cover the Soviet 64th Fighter Air Corps from the air, operating successfully in their zone. Under blows of pa

North Korea and China, American troops in the conditions of winter and the lack of a road network began to retreat. Supply was broken, losses grew. On December 6, Kim Il Sung's troops captured Pyongyang, and at the end of the year they reached the 38th parallel. The commander-in-chief of the "UN troops" (as the opponents of the DPRK were called), General MacArthur, demanded from Washington permission to launch a war against the PRC, bombard targets in China from the air, and inflict atomic strikes on large cities.

At first, President Truman seemed to share MacArthur's views. At a press conference on November 30, 1950, he announced the readiness of the United States to take "all necessary measures that the military situation will require." He was asked: "Do these measures include the use of the atomic bomb?" He replied, "That includes all the weapons we have." To the repeated question: "Does this mean that the possibility of using a bomb is being discussed?", the President replied that "its use is always actively discussed"52 .

This statement by Truman seriously alarmed the Western partners, especially London. The words of the President of the United States were interpreted as a hint at the possibility of a 3rd World War. A heated debate broke out in the English House of Commons. 100 Labor MPs protested against the use of the atomic bomb. Prime Minister K. Attlee urgently flew to Washington to meet with the President of the United States. He expected Truman to give

he was promised to consult with London on the issue of atomic strikes on China. However, the president agreed only to keep the British government informed about "the course of events that may lead to a change in the situation." The joint communiqué issued after the talks between Truman and Attlee (December 8) said: "The President hopes that the international situation will never require the use of the atomic bomb." But the main thing for him, of course, was the fear that the use of the atomic bomb could the response of the Soviet Union. Subsequently, G. Truman wrote in his memoirs:

"If we decided to extend the war to China, we would have to expect retribution. Beijing and Moscow, both ideologically and in accordance with the treaties, were allies. If we were to attack communist China, we would have to expect Russian intervention.

Secretary of State J. Marshall was of the same opinion. When asked in Congress whether he would have authorized the atomic bombing of Manchuria if he was confident that the USSR would not interfere in the conflict, he replied: "If there was no danger of Soviet intervention, then the bombings you mentioned would begin without any delay"55. But the issue of the atomic bomb was also removed because during the battles in the winter and spring of 1951, the North Koreans recaptured Seoul and Inchon, and then, under the blows of the American-South Korean troops, were again pushed back to the 38th parallel. By the summer of that year, the front line was almost frozen, fluctuating around the 38th parallel. Opportunities arose for negotiations on a truce.

But earlier, in November 1950, there was certainly a reason for the British Prime Minister's alarm. And not only because the USSR became an atomic power in 1949, but also because in the late 40s it already possessed atomic bomb carriers capable of hitting targets throughout Western Europe, as well as Alaska. It is no coincidence that General

Anderson, reporting to US Secretary of Defense Symington in April 1950,

mentioned Alaska as an area vulnerable to Soviet aviation.

Indeed, the Soviet Union, having created an atomic bomb, sought to have such bombers that could hit important targets of a potential enemy, at least at its forward bases. We needed a means of delivering an atomic charge to the object of impact. Soviet aviation in the mid-40s had mainly tactical bombers designed to support ground forces in theaters of war. However, now there was a need for such aircraft that could carry the atomic bomb not only to the deep rear of the NATO countries, but also to the American continent. There were no such planes. The American establishment was kept in unleashing an air-atomic war against the USSR only by powerful Soviet tank armies stationed in the center of Europe.

In such an environment, the Soviet leadership was in a hurry to create a long-range bomber. It was decided to copy the American B-29 - four aircraft were interned in our Far East after their forced landings due to damage received during the bombing of Japan.

In early June 1945, Tupolev and his first deputy Alexander Arkhangelsky were summoned to the Kremlin to see Stalin. According to Arkhangelsky's memoirs, the Boss immediately went to the heart of the matter: "Comrade Tupolev, we have decided to copy the B-29 bomber; you will learn the details from Shakhurin." Tupolev, bewildered by such an unexpected turn of events, was despondently silent. Then Arkhangelsky, realizing that no objections would help, replied with feigned enthusiasm that "the task of the Party and the government will certainly be fulfilled."

On June 6, the State Defense Committee issued a decision, according to which the Tupolev Design Bureau was instructed to organize the production of the "twin V-29 - B-4 ("four-engine bomber").

people's commissariats, departments, design bureaus, factories and other organizations were instructed to scrupulously, according to the requirements of the Tupolev Design Bureau, reproduce literally everything that the B-29 consisted of: materials, assemblies and devices. This, I must say, a historic decision ended with two points: Tupolev - in a year to complete the production of all the necessary technical documentation, and the director of the Kazan Aviation Plant Okulov - in a year to build the first series of 20 aircraft.

Military pilots flew three restored "superfortresses" to Moscow. Those were not possible carriers of atomic bombs, but ordinary serial aircraft. In the largest hangar at the Central Airfield, the first aircraft was completely dismantled, its parts were used to produce drawings, and the "stuffing" - instruments and equipment - was transferred to specialized organizations. The second aircraft was used to refine flight data and train the crews of future B-4s, and the third was kept as a duplicate in case the second aircraft crashed.

It soon became clear that without a fundamental change in the technology of our aviation and metallurgical plants and other enterprises, it would not be possible to reproduce this aircraft. The vast majority of technical solutions, materials and instruments used by Boeing in the development of the B-29 were completely new to the domestic industry. In accordance with Stalin's personal instructions, not the slightest deviation in any detail from the American model was allowed. "Organizational conclusions" on negligent or obstinate chief designers and plant directors were tough: those of them who did not want to copy or only tried to prove that their own serial

development is better than American, were fired.
Such was the dramatic nature of the situation, hidden from prying eyes: the designers were forced to "step on the throat of their own song" and copy someone else's, keeping the deadlines specified in the GKO decision, and they were extremely short.
Understandable and negative reaction
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The decision of the leadership of the Ministry of Aviation Industry to instruct Tupolev to develop a new version of the B-4 - with a significantly elongated bomb bay. This would mean a complete reconfiguration of the aircraft, the creation of an essentially new design and would lead to a missed deadline. Thus, the mutual grinding of the two departments - nuclear and aviation - began rather painfully. Such a "frivolous" attitude of the nuclear scientists to the alteration of the carrier speaks of their misunderstanding at that time of the intricacies of aviation and the whole complexity of "connecting" the bomb and the carrier aircraft. Understanding came gradually, in the process of joint work.

Tupolev and his closest assistants (Markov, Kerber, Cheremukhin and others) fell on the hardest work: coordinating the activities of many industries, and most importantly, "pulling" them to the modern technical and technological level. The number of units and blocks that were transferred to Tupolev's "subcontractors" for manufacturing was measured in thousands.

On August 3, 1947, at the traditional air parade in Tushino, a trio of B-4 aircraft was shown to the public for the first time. At the cost of incredible efforts, the Soviet Union managed in two years to master the most complex technologies and give its military aviation a first-class machine. When the aircraft was put into service, it was designated as TU-4. Dementiev (then a deputy, and since 1953 - the Minister of the Aviation Industry) said that Stalin himself gave this name, correcting it in the act on state tests "B" on "TU" with a blue pencil.

In total, about 850 cars were produced from 1948 to 1952. In a historical context, it is clear that the creation and mass production of the .TU-4 aircraft prepared fertile ground for a true revolution in aviation -
the appearance of the first generation of Soviet jet aircraft, first military, and then passenger.

The complexity of all this work lay in the fact that the B-29 was crammed with a mass of sensors, a huge number of devices, remote tracking
systems
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firing, etc. This was not yet the case on Soviet aircraft. In order to make an exact copy of the B-29, it was necessary to almost re-create a new aviation industry, to study American technology. And all this was done, and in the shortest possible time.

The TU-4 bomber could operate at a distance of up to 6,000 kilometers, which meant that TU-4 aircraft, taking off from bases in our country and Eastern Europe, could reach targets in Western Europe, the Middle East and Japan. In order to increase the range of their flight, already at the beginning of the mass production of the TU-4, it was decided to equip the aircraft with an air refueling system.

At first, refueling specialists acted independently, at their own peril and risk. In July 1949, performing automatic refueling for the first time, they filmed the entire process. Tupolev, having learned about this, wanted to get acquainted with such a promising work.

Subsequently, test pilot I. Shelest recalled: “Screens of a secret movie went on the screen. It was seen how between the wings of two aircraft

TU-4 was thrown over the cable. Tupolev was silent at first. When the fuel hose began to crawl out of the wing of Amet Khan (the pilot of another car. - *A. O.)* of the plane like an anaconda and rushed to the wing of my car, Tupolev suddenly behaved like at a hockey match - he fidgeted in his chair and shouted out in falsetto: "Well done !"".56

In 1952, after passing state tests, the "wing-to-wing" refueling system was adopted first on the TU-4, and then on the new TU-16 jet bombers. However, even with refueling, these aircraft would not be able to operate on targets in the United States: there was only enough fuel *there.* Therefore, already in 1948, the Tupolev Design Bureau received an assignment to build a super-heavy four-engine bomber with a flight range sufficient to return to its airfields.

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In addition, the TU-4 had a major drawback, which in those years it was time to eliminate. It was a piston (not jet) aircraft, with a relatively low speed. This means that he was an easily vulnerable target for jet fighters already in service with a number of countries, which had greater speed and flight altitude. The vulnerability of piston aviation, in particular the B-29, was clearly shown by the Korean War, during which Soviet MIG-15 jet fighters successfully shot down the B-29.

Therefore, in order to be at the level of the century, it was necessary to have modern jet aircraft. And, of course, in the Soviet Union, advanced aviation design thought was aimed at solving this problem. The design bureaus of A. S. Yakovlev, A. I. Mikoyan, S. A. Lavochkin, A. N. Tupolev, S. V. Ilyushin, P. O. Sukhoi and others developed projects for supersonic jet aircraft for various purposes. Already in April 1946, test flights of Soviet jet fighters Yak 15 and MIG-9 took place, and on the May 1 holiday of the following year, more than 100 jet aircraft flew over Red Square during a military parade.

But they were fighters. They certainly increased the combat capabilities of the country's air defense system and the destruction of ground targets on the battlefield. However, it was necessary to solve another problem: to create a jet bomber, capable of delivering nuclear weapons to objects deep in the territory of a potential enemy. The first such aircraft was the IL-28 with a range of 650 kilometers and a speed of 900 km/h. From the airfields of East Germany, he could strike almost the entire depth of the territory of the continental countries of Europe of the Anglo-American orientation (since 1949 -
NATO), as well as Alaska. With high speed and high flight altitude, such an aircraft became a difficult target for Western air defense systems.
Apparently, in connection with this, Stalin did his best to ensure that the new jet bomber entered the troops in sufficient quantities.

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Few people know Stalin's order dated the spring of 1952: to create 100 bomber air divisions equipped with jet bombers. And although the leaders of the Air Force tried to prove to the head of state that the need for such aircraft, taking into account those already available, did not exceed 60 divisions, the order began to be carried out. At the headquarters of the Air Force grabbed his head. Indeed, in addition to these 100 divisions, to ensure their activities, it was necessary to form at least 30 fighter cover divisions and up to 10 reconnaissance aviation regiments to train at least 10 thousand pilots, specialists of other profiles, release 10 thousand attack warehouses etc. aircraft, bombers in excess of the plan, build airfields, hangars, Despite the protests of professionals, the Air Force headquarters had already created

special management to solve this problem."

It is difficult to say how this whole undertaking would have ended, but already in 1952 the more advanced TU-16 jet bomber was successfully tested. The plane confidently kept the speed of 1000 km / h and flew at a distance of 4000 kilometers. Stalin ordered to put it into mass production, without waiting for the end of the tests. And he did the right thing. It was the height of the war in Korea, the possibility of using an atomic bomb by the Americans against China was discussed more than once in Washington - it was necessary to show that, if necessary, modern Soviet aviation would carry an atomic bomb to England and France. The order regarding the creation of a huge air fleet IL-28 lost relevance, and with the death of Stalin ceased to be fulfilled.

Thus, the Soviet Union, having accepted the military-strategic challenge of the United States, and later NATO, since the beginning of the Cold War, decided to oppose them the military might of the socialist countries. In response to Washington's policy "from a position of strength," Moscow began to pursue its own policy of power. New types of military equipment began to enter the army and navy in ever-increasing quantities. The creation of the NATO bloc led to the fact that the USSR

In the 40s, he began to increase his armed forces again. In 1952-1953, the full motorization and mechanization of the Soviet Army was completed, aviation was re-equipped with jet aircraft, and the fleet was improved58. The troops received new samples of tanks, anti-aircraft guns, radar equipment, and automatic weapons.

The Soviet Union, along with the creation of atomic weapons and their aviation carriers, also took measures in the field of mastering rocket weapons. It is known that after the 2nd World War, German V-2 ballistic missiles and V-1 cruise missiles (aircraft projectiles) fell as trophies to both Americans and Russians. But, unlike the United States, in the USSR, where there were many German rocket scientists, they themselves did not play a significant role in the development of Soviet rocket weapons. However, the German V-1 and V-2 rockets were carefully studied and tested in test launches. In the first post-war years, design thought in the USSR moved far ahead and the German experience was, of course, used.

A thorough study of the advantages and disadvantages of the V-2 made it possible to reveal the main drawback of German ballistic missiles. The Germans considered the rocket as a whole from the beginning to the end of the flight. But Soviet rocket scientists (and among them were aviation and artillery specialists) came to the conclusion that a different approach was needed to a ballistic missile. The rocket has two completely different stages of flight: active, when the engines are working - large fuel tanks are needed here - and passive, when it flies by inertia - like a stone from a sling. The higher the speed - and it increases with the increase in the planned flight range - the greater the load during re-entry on the descending branch of the trajectory. Practically, according to the V-2 principle, it was impossible to create a rocket for a range already above 1000 kilometers. After all, the part that has done its job is already useless on the active site - it must be separated. And you only need to make strong

warhead, not the entire rocket. This was a very important conclusion for the design of both single-stage, and even more so multi-stage rockets. Thanks to this technical discovery, Soviet specialists were the first in the world to create an intercontinental rocket, which, of course, had a special, great significance.

But all this was later. And then, immediately after the war, on the basis of Decree of the Council of Ministers of the USSR of May 13, 1946 in October of the same

1946-1948 "Plan of the most important experimental work on jet weapons" was adopted. It provided for the creation of domestic ballistic missiles with a range of 270 kilometers by December 1948, 600 kilometers by October 194959 .

The basis of Soviet rocket science was NII-88, which settled in Podlipki. The color of the design ideas of the Soviet Union was assembled there. But the work was built differently than in the fascist Reich. If in Peenemünde, Wernher von Braun was in charge of the entire chain, from development to launch, and all specialists were concentrated, then in the USSR the matter was put differently - on the basis of cooperation, with the involvement of leading scientists from each industry. In certain areas, chief designers were appointed in the relevant ministries. V. P. Glushko in the Ministry of Aviation Industry became the chief designer of rocket engines. NII-885 is being created at the Ministry of Communications Industry to develop the entire radio complex and autonomous control required for missiles. M. S. Ryazansky was appointed chief designer, and N. A. Pilyugin was appointed his deputy for autonomous on-board control systems. V. N. Kuznetsov is appointed chief designer of launch complexes and refueling equipment.

Each of the parent organizations had its own very extensive cooperation. In NII-88 itself, development work was headed by chief engineer Yu. A. Pobedonostsev, his deputy B. E. Chertok and the soul of the project - the chief designer of ballistic missiles

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long-range cathode, head of department No. 3 of the Special Design Bureau of the Institute S.P. Korolev.

All these people have been to Germany, and knowing each other well, they unconditionally recognized the authority of S.P. Korolev. Even during their business trips in post-war Germany, this center of collective leadership in the development of rocket science was formed - the Council of Chief Designers. Korolyov was unanimously recognized as its chairman.

In September 1947, the team working on the ballistic missile project went to the test site in Kapustin Yar, in the lower reaches of the Volga. We traveled in a special train-laboratory, created back in Germany. His equipment made it possible to design any element of the rocket, to test, to check its various components and assemblies. Residential cars provided good conditions for work and leisure.

The USSR Ministry of Defense then created a test site for missile technology, which at that time was called the State Central Test Site. It was located between the Volga and Akhtuba rivers. To the east in the direction of the shooting - uninhabited trans-Volga steppes, at a distance of about a thousand kilometers - no special settlements.

All services of the range in September 1947 were still being created. officers were placed in a small town. The soldiers lived in tents and dugouts.

Hot days of preparation for test launches of the rocket began. In those days there were many problems with the equipment. Heated debate broke out over the identification of the causes of the shortcomings. The emerging problems were discussed at meetings of the State Commission. Its chairman was Marshal of Artillery N. D. Yakovlev, and its members included D. F. Ustinov, I. A. Serov (Deputy Beria) and other responsible persons.

The first launch of the V-2 rocket took place on October 18, 1947 at 10:47. The rocket flew 207 kilometers and, deviating 30 kilometers from the course, collapsed in the dense layers of the atmosphere.

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But with the second rocket, launched on October 20, there was an embarrassment. Already on

during the active phase of the flight, a strong deviation of the rocket to the left was recorded. No message was received from the estimated impact site, and field observers reported that the rocket "went towards Saratov." There was excitement at the range. Serov threatened the rocket men with big trouble if the rocket fell on the city. Fortunately, everything ended well: the rocket flew 231 kilometers, but deviated by 180 kilometers. It would not have reached Saratov anyway: the distance is more than 270 kilometers60 .

It became clear: V-2s were outdated - it was necessary to create a new, more perfect rocket.

The following year, 1948, the R-1 was created - the first Soviet rocket. It was a copy of the German one, but for the success of the future Soviet rocket science, it was necessary to go through this stage as well. Soviet industry had no experience in creating such weapons. It was required to introduce new technologies, to use previously unknown materials that the industry was just mastering. 35 research institutes and design bureaus, as well as 18 factories, were involved in this work.

On October 10, 1948, a successful
launch of the first domestic ballistic missile R-1.

12 R-1 missiles were delivered for testing. It took 9 from the start, and 7 of them reached the goal. The accuracy of the hit was higher than that of the German missiles. It was already a success. It was due to the fact that during the work on the German rocket, the main drawback of the V-2 was revealed - the weakness of the tail. She flew along a ballistic trajectory, and on a descending line, when entering at high speed into the dense layers of the atmosphere, the tail assembly usually could not withstand the loads and could no longer work fully - as a result, the rocket collapsed. Other shortcomings were also identified.

But still, the new Soviet weapons could not yet be called reliable. The R-1 rocket gained full development power after a successful launch on October 10, 1948. Dal

The most extensive tests have confirmed the correctness of our designers' solution of the main problems associated with the creation of a ballistic missile.

Flight tests of the second, more advanced, series of the same missiles were carried out in September-October 1949. The test results showed that the characteristics of the missiles, their quality, the reliability of the operation of the control equipment, propulsion systems and ground equipment units are significantly higher than those of the missiles of the first series. Soon, the third series R 1 was tested at the test site. And so, by a decree of the USSR government of November 28, 1950, the R-1 rocket was put into service. The rocket weighing 13.4 tons had a range of 270 kilometers and carried a conventional explosive charge weighing 785 kilograms. It had an accuracy of hitting a rectangle of 20 kilometers in range and 8 kilometers in a lateral direction61 .

Simultaneously with the development of the R-1, scientific and experimental work was carried out on the R-2 rocket, the range of which was designed for 600 kilometers. Its design was significantly different from the R-1, the accuracy of hitting the target was provided by a radio correction system. Flight tests of this missile began in September 1949. An important difference between this rocket and the previous one was the implementation of Korolev's idea of separating the warhead from the rest of the rocket body, which was not the case in the V-2, and the transfer of the instrument compartment to the lower part of the body. In November 1951, this missile was also put into service. With a weight of 20 tons, it could hit objects at a distance of 600 kilometers, and the mass of its combat charge was 1008 kilograms62 .

In the troops, fire tests of the R-2 were carried out in 1952 near Luga during the training camp of the command staff of the missile units under the leadership of the deputy

Minister of War for Armaments, Colonel-General M. I. Nedelin.
It should be said that Mitrofan Ivanovich Nedelin (1902-1960) was

com, who did a lot for the formation and development of the missile forces. A participant in the Civil War, he met the Great Patriotic War as a colonel, an artilleryman. He headed the artillery of a number of armies and fronts. After the war, he persistently defended advanced views on the most effective use of the achievements of the military-technical revolution, especially in the field of rocket weapons. In 1959, he became the first Commander-in-Chief of the Strategic Missile Forces in the USSR. In 1960 he died at

test of a strategic missile.
Although the R-2 missile system differed from the R-1, providing a greater range of action, this missile still did not meet the requirements of modern warfare. The bulky composition of large-sized units of ground equipment, the use of rapidly evaporating liquid oxygen as an oxidizer made it difficult for the combat use of the complex, made it inactive and vulnerable to enemy damage. It was necessary to look for samples of rocket weapons that were more advanced in technical and combat terms. Therefore, in 1951, under the leadership of S.P. Korolev, a new rocket, R 11, began to be developed, with an engine running on high-boiling components (nitric acid and kerosene), a new autonomous control system and higher quality ground equipment. She had a range of 270 kilometers, weight - 5.4 tons, a charge equal to 353 kilograms. Its mobile version of the R-11M was a caterpillar self-propelled unit. The accuracy of the hit was 8x8 kilometers. In the future, its version of the R-11FM was installed on submarines. The R-11 missile was put into service in 1956. But back in 1955, the R-5 ballistic missile with a range of 1200 kilometers was tested and began to enter the troops. She (weight 29 tons) could carry a 1000-kilogram charge and had increased hit accuracy due to a combined control system (autonomous and by radio).

But the main achievement of the 1st half of the 50s in the Soviet rocket industry was the R-5M rocket - a mobile version of the R-5. This complex was the world's first missile carrying a nuclear charge at a range of 1200 kilometers. And although all Soviet missiles of that time, except for the R-11 and R-11 M, were single-stage and had liquid-propellant engines (LPRE) designed by V.P. Glushko using ethyl alcohol and liquid oxygen, this was undoubtedly a new word in the world rocket technology. If the Americans at that time made the main emphasis on improving the aviation means of delivering nuclear and conventional munitions to the target, then in the USSR the priority was the development of missile weapons for operational tactical, and then for strategic purposes.

The successes of the Soviet Union in the creation of the atomic bomb, jet aircraft capable of carrying it, missile systems with a nuclear charge allowed the command of the Armed Forces to introduce new types of weapons into the troops, test their effectiveness and teach personnel to manage them and operate in the calculated conditions of an atomic war.

A significant event of those years was the military exercise, which took place in September 1954 at the Totsk training ground near the city of Buzuluk. In the past, the chairman of the Totsk District Executive Committee, F. I. Kolesov, recalled that when the issue of evicting residents from nearby villages was being decided, he asked the military:

"Why will you detonate the bomb here, and not in the sands - do we have enough of them? And they answer: you need to know what will happen exactly here - here the terrain and population density are exactly the same as in Germany"63 .
It was about working out the offensive of our troops in the "European theater of operations." Moreover, the atomic bomb was assigned the role of a super-powerful landmine, "cracking" the defenses of NATO troops, punching a hole in it, through which Soviet tanks advancing to the west were supposed to pour and
motorized infantry.

Before the start of the explosion, the troops participating in the exercise were located in shelters no closer than 5-7 kilometers from the planned epicenter of the explosion. The leadership of the USSR Ministry of Defense, the ministers of defense of a number of allied countries, and the commanders of the troops of the districts were 11 kilometers from the place where the atomic bomb was dropped in an open area, having only light-protective goggles.

The TU-4A bomber, piloted by pilot Kutyrchev, took off early in the morning from the airfield in Vladimirovka (south of Stalingrad) and at 9:30 a.m. dropped an RDS-3 bomb over the test site. It exploded at an altitude of about 380 meters. Eyewitnesses say that the ground seemed to sway and leave from under their feet. There was an infernal roar and crackle (this was a shock air wave), and a dazzlingly bright atomic mushroom grew over the test site. After 5 minutes, the atomic alarm was released. A powerful artillery preparation for the offensive began, and bomber and fighter aircraft (IL-28 and MIG-15bis aircraft) bombed the "enemy" fortifications.

Aviation engineer S. Krylov, who served the aircraft after they landed at the airfield, recalled: “Imagine: the earth breathes heat, a strong wind heated to 40 degrees hits your face, your mouth is dry, your head cracks, sweat flows down your back into boots, but a gas mask and the protective suit must not be removed .
The advanced units of the advancing troops advanced to the explosion area after 2.5 hours. The attacking units in protective equipment passed 500-600 meters from the epicenter, having received a radiation dose of 0.02-0.03 roentgens, and in tanks 4-5 times
less. Of course, those infantrymen who, after the end of artillery preparation and bombing, followed the tanks through the epicenter of the atomic explosion, had the hardest time of all. A participant in the exercises, I. Vukhanovsky, a major in the medical service, said: “I found myself at the epicenter within half an hour after the explosion. The earth turned into slag and was, as it were, beaten up.

liami. Many experimental animals burned alive, there were many wounded cows, sheep, horses. Here I saw with my own eyes how inhumane this weapon was."65 Toward evening the all-clear signal sounded.

A few days after the exercises, a short TASS report appeared in Pravda: "In accordance with the plan of scientific research, one of the types of atomic weapons was tested in the Soviet Union. Valuable results have been obtained that will help to successfully solve problems of defense against atomic attack."

Later, more serious consequences of radiation exposure and radioactive contamination of the area were revealed, which affected the local population. Only in 1990, after the removal of the signature on non-disclosure of state secrets, a committee of veterans of special risk units was formed, which set itself the goal of identifying all the living participants in the Totsk military exercises, as well as nuclear weapons tests.

With the appearance in the USSR of carriers of atomic weapons - missiles and aircraft - The Soviet Armed Forces have entered a new stage in their development. combat

the capabilities of the ground forces of the Air Force and the Navy increased sharply. But it was necessary to qualitatively re-equip the air defense forces, because the means of combating an air enemy that were used during the years of the Second World War and the first time after it were no longer suitable for combating high-speed, equipped with radio reconnaissance equipment and jamming American and British jet aircraft. In anticipation of a possible massive air attack using nuclear munitions, which was threatened by the United States, the Soviet government took vigorous measures to strengthen the air defense, increase its combat capabilities, and make it insurmountable for the potential enemy's air attack weapons. The development of the air defense forces went in many directions. In the USSR, jet fighter-interceptors, radio-controlled anti-aircraft

guns, new radar and radio equipment, anti-aircraft missiles, the latest electronic warfare equipment were tested and put into service, intensive preparations were underway to automate the controls for various systems of air defense weapons.

It must be said that the rearmament was not without difficulties. Take at least jet fighter aircraft. So, for example, when in 1947 the Soviet government was offered two new fighters -
piston La-11 designed by S. Lavochkin and jet MIG-9 by A. Mikoyan, Stalin preferred La-11. Even when Lavochkin himself recommended putting the MIG-9 into production, Stalin said: “The La-11 is an aircraft on which all defects have already been eliminated, there is a pilot who tested it, and the technology for its use has been developed. And what is the MIG-9? A pile of metal"66. But he soon realized the importance of jet aircraft. And already on May 1, 1947, at the air parade in Moscow, the MIG-9 was demonstrated to the public.

MIG-9 was the first sign. The development of jet aviation in the USSR proceeded at an accelerated pace, and already at the end of 1947, the design bureau of A.I. Mikoyan released the MIG-15, which was destined to play a special role in air battles with American aircraft during the Korean War.
Captured German ME 262 jet fighters did not go unnoticed either. Soviet aircraft designers took the opportunity to compare this German jet aircraft with similar Soviet models. On August 15, 1945, test pilot A. G. Kochetkov, on the instructions of the Air Force Research Institute, made the first flight on the ME-262. The report on this event noted that "the ME-262 captured aircraft ... has a great advantage in maximum horizontal speed over modern domestic and foreign fighters with VMG (propeller group, that is, piston aircraft) and has a satisfactory speed

lift capacity and flight range. The poor take-off properties of an aircraft with gas turbine jet engines require large runways up to 3 kilometers long or the use of special take-off boosters (powder or liquid rockets)."

However, they did not begin to produce and master this aircraft in the USSR. The famous Soviet aircraft designer A.S. Yakovlev wrote in his book "The Purpose of Life. Notes of an Aircraft Designer":

“At one of the meetings with Stalin, when discussing the work of the aviation industry, the proposal of People's Commissar A.I. Shakhurin on the serial production of the Messerschmitt-262 jet fighter captured by our troops was considered. During the discussion, Stalin asked

whether I am with this aircraft and what is my opinion.

I replied that I know the ME-262 aircraft, but I strongly object to putting it into production, because it is a bad aircraft, difficult to control and unstable in flight, which had suffered a number of accidents in Germany. If it enters service with us, it will scare our pilots away from jet aircraft. They will quickly see from their own experience that this aircraft is dangerous and, moreover, has poor takeoff and landing properties. "

I also noticed that if we copy the Messerschmitt, then all attention and resources will be mobilized for this machine, and we will cause great damage to work on domestic jet aircraft.

Finally, it was necessary to take into account that our jet aircraft designers were doing well. Artem Mikoyan worked on the MIG-9 twin-engine fighter. We built a single-engine Yak-15 fighter, in October 1945 he was already at the airfield, doing jogging and flying up.

But still, an attempt to create a fighter based on the ME-262 was made in 1946 at the pilot plant of the Design Bureau of P. O. Sukhoi. The aircraft built there was also equipped with two jet engines and configuration

tion was very reminiscent of the ME-262. It differed only in a slightly modified wing shape. The aircraft was tested in flight by the same pilot A. G. Kochetkov. It could reach speeds of up to 885 km / h, had a ceiling of 12,800 and a range of 1,200 kilometers. However, the aircraft did not go into production, because by that time the Sukhoi Design Bureau had released a new jet fighter with better performance. An improved version of the MIG-15 fighter also appeared. It became known as the MIG-17 and entered the history of air defense for a long time.

Soviet design thought paid much attention to the creation of anti-aircraft guided missiles. In NII-88, which developed mainly ground-to-ground missiles, there was a certain department No. 4, headed by E. V. Sinelshchikov. This department was engaged in the design of anti-aircraft guided missiles (SAM) with a homing head. In its work, the department relied on the captured German anti-aircraft missile "Wasserfall". In Germany, she did not go beyond the stage of testing, and now in the USSR they intended to use her to create Soviet missiles. A number of departments were engaged in anti-aircraft missiles of German origin, striving to improve German guided anti-aircraft shells "Schmeterlink", "Reintochter", unguided rockets "Typhoon", as well as engines for them.

The Soviet government attached great importance to work on anti-aircraft missiles. In conditions when the "cold war" was gaining strength, a powerful air defense was required, capable of reliably resisting the air armadas of a potential enemy. First of all, it was necessary to protect at least the main vital administrative-political centers and military-industrial facilities of the country from air strikes. And then it was decided to create a Moscow air defense system based on guided anti-aircraft missiles. In the development of Soviet anti-aircraft missiles, a significant role was assigned to German experience in the creation of anti-aircraft weapons. In August 1950, the Council of Ministers of the USSR passed a resolution on the creation of a

Moscow ring of anti-aircraft missile defense. This work was headed by the almighty L.P. Beria. Under his auspices, the 3rd Main Directorate, specially formed under the Council of Ministers, led the work in this area.

At NII-88, the lot fell to bring the Wasserfall to such a level as to create an effective guided anti-aircraft missile on its basis. Management problems were dealt with by NII-885 (a former telephone factory). However, things with "Wasserfall" were tight. This had its reasons. First, the German

rocket scientists in the development of the V-2 and V-1 succeeded much more than in the work on anti-aircraft missiles, since the problems of controlling the latter were much more difficult than those of the rocket. there and the class "earth - earth". Secondly, in the 1940s, Soviet managers of anti-aircraft missile projects did not enjoy such indisputable authority in their teams as the creators of the R-1 and R-2 and other ground-to-ground missiles. And if in Peenemünde the Germans made dozens of launches of the Wasserfall, albeit unsuccessful, then by the end of the 40s, the team of Sinelshchikov and S. L. Beria (son of L. P. Beria) did not go beyond the stage of drawings of the missile defense system, which was very reminiscent of the Wasserfall ". As a result, the development of captured missiles was stopped, and the 3rd Main Directorate and KB-1 subordinate to it took up the creation of Soviet anti-aircraft missiles. In 1953, S. Lavochkin's missiles successfully hit TU-4 target aircraft at the same training ground in Kapustin Yar, where S. Korolev's missiles were tested.

Intensive work was underway to create the first in the USSR anti-aircraft missile system S-25 "Berkut". The first launch of this S-25 anti-aircraft missile was made on July 25, 1951. In October of the same year, tests of a prototype radar station for guiding these missiles began near Moscow. Participant in the work on the creation of the S-25, reserve colonel Mikhail Borodulin

recalled:

“In April 1951, we, graduates of the military academy, were asked to fill out one questionnaire. And on June 6, a small group of lieutenants was received by the head of the jet

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Faculty Lieutenant General of Artillery Sergei Fedorovich Nilovsky. Only a few days later we learned that by that time he had already been appointed head of the range of anti-aircraft missile troops. We talked about this and that, and then Nilovsky said: to be at the Central Airfield tomorrow. They asked where are we going? Find out on the plane, he answers. So we ended up in Kapustin Yar. We were preparing Lavochkin missiles for launch.

The shooting was intense. Considerable courage was required from the pilots. They lifted the targets, brought them to the track and ejected. Then the targets went on autopilot. Behind them are two escort fighters. If the packers missed, then they finished off the target ... And then May 25, 1953 came. A TU-4 bomber at an altitude of 7 kilometers is destroyed by a rocket with a high-explosive fragmentation warhead E-600. That day is considered the birthday in Russia of a new type of weapon - anti-aircraft missile, capable of effectively combating aircraft and other aerodynamic means of attack in any weather conditions, day and night .

Until the summer of 1954, intensive control firing at IL-28 and TU-4 aircraft was carried out at the Kapustin Yar training ground in order to evaluate the effectiveness and determine the affected areas of missiles. Then the system was submitted for state tests.

From June 25, 1954 to April 1, 1955, the creators of the S-25 carried out 69 rocket launches. On April 21, the exam was held by a full-time army regiment. The shooting went well. And in May 1955, the first domestic anti-aircraft missile system entered service with the country's Air Defense Forces.

S-25 anti-aircraft missile systems formed two rings around Moscow. The system made it possible to simultaneously fire at up to 20 targets at an altitude of 3 to 25 kilometers. Each regiment was assigned a separate sector, within which it provided cover for objects. So Moscow was protected from a possible air attack.

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But only Moscow. The airspace of the rest of the territory of the USSR

as before, it was guarded by fighter aircraft and more advanced anti-aircraft artillery systems. These funds could reliably protect the sky of the Soviet Union from a massive attack only by piston strategic bombers and jet aircraft of the first models (B-36), but they could not fight high-speed (1000 km / h) and high-altitude (16-17 thousand m) targets . In addition, the weakly equipped radio engineering troops (radar stations), especially in the northern regions of the country, were a weak point of the Soviet air defense.

All these serious military preparations of the opposing sides for a global nuclear war were generated by the hostile policy of the recent allies in the anti-Hitler coalition. Stalin's speech at an election rally on the eve of the elections to the Supreme Soviet of the USSR on February 9, 1946 called on the Soviet people to be vigilant in regard to the designs of world imperialism. Winston Churchill's Fulton speech (March 5, 1946) declared the Soviet Union a country that lowered the "Iron Curtain" over Europe. This speech became the manifesto of the Cold War.

In March 1947, the so-called "Truman Doctrine" was proclaimed. It was based on the idea of "containment of communism". It was envisaged to establish the hegemony of the United States and its allied Western powers in the world. The "containment of communism" was conceived as a struggle against the left forces, which after the war gained great influence in the capitalist countries of Europe, as the suppression of the USSR's desire to create a pro-Soviet bloc with neighboring countries, as the deployment of a network of American military bases in the regions adjacent to the Soviet Union and the provision of the necessary military-political conditions for pursuing a policy "from a position of strength" by all methods except war68 .

At the same time, all these actions of statesmen of the great powers, who have recently defeated a common enemy, are still

did not mean a complete rupture of those allied relations that had developed during the 2nd World War. Contacts and conferences of foreign ministers of the victorious countries continued, peace treaties were signed (February 1947) with Italy, Romania, Hungary, Bulgaria, Finland, negotiations were held on the German question.

However, the desire of the USSR to create a belt of friendly states on its borders to replace the anti-Soviet "cordon sanitaire" that existed before the war, to strengthen its influence in these countries, which in those years became countries of "people's democracy" with growing elements of socialism, was perceived by the West as "the expansion of the Soviets", while the Iranian crisis of 1945-1946, Soviet territorial demands on Turkey, and the intensification of the struggle of the Greek left forces against the American occupiers were regarded as Moscow's attempts to pursue a policy of so-called "patchwork aggression." The United States was especially worried about the growing influence of the USSR in Eastern Europe and the authority of the Communist parties in France, Italy, Belgium and a number of other Western countries. Therefore, the greatest funds were invested in the countries of Western Europe in order to make them the strongest possible counterbalance to the Soviet Union. The power of Western European capitalism, closely connected with and dependent on American capitalism, was reviving. On this basis, a new military-political structure was erected, a powerful military machine directed against the Soviet Union was created.
However, for all this it was necessary to create a fairly solid economic base in Western Europe. Its basis was laid by the "Marshall Plan", put forward by the US Secretary of State J. Marshall in June 1947 and adopted for the countries of Western Europe in the same month at a ministerial conference.

Foreign Affairs of England, France and the USSR in Paris. Although the USSR participated in the conference, it rejected this plan for itself and did not recommend that the governments of the countries of people's democracy accept it. But why?

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First, because the countries that agreed to accept this plan and American assistance under it had to provide the United States with full information about the state of their economy, the country's losses in the war, foreign exchange reserves, and the proposed use of American funds. And this meant that the Soviet Union had to reveal all its secrets, including projects and the progress of work on the creation of atomic and missile weapons, show the state of its economy and ways to restore it, put the country's human and natural resources under American control.

Secondly, the "Marshall Plan" was designed to restore the capitalist economy, and in the USSR already in the 30s, and especially during the war, a socialist economy was established, for which this plan was unacceptable, the Soviet leadership at that time under no circumstances would not accept the capitalist way of restoring the national economy. (Today, based on the experience of the last 15 years, we are convinced of the price our people pay for hasty capitalist reforms.)

It must be said that in 1947 the American leadership was relieved that the Soviet government abandoned the "Marshall Plan": if the USSR had accepted it, unnecessary difficulties would have arisen for the ruling class of America, which had already taken a course of confrontation with the USSR. From the point of view of American strategy (and this was the main thing for Washington at that time), Europe, with a policy of confrontation with the USSR, had a number of advantages. Here the borders of the capitalist West came close to the countries of people's democracy, there were "open" approaches to the USSR in the north and in the south, which ensured the exit of strategic bombers to the vital regions of the USSR. At the same time, the attention of Washington politicians was increasingly attracted to the center of Europe. In their European strategy, the main role was assigned to West Germany. It was to rise from the ruins and become the main center of anti-Sovietism in Europe. All means - economic, military, ideological were directed

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We are determined to bring the front of confrontation with socialism to the very center of Europe as soon as possible, to make it the front line of confrontation between East and West. There was another important task that the US hoped to solve by creating its own forward-based forces. “One of the basic concepts of our modern strategy,” wrote US Navy Chief of Staff Admiral Sherman in 1951, “is to wage the war as far as possible from the United States.”69 American experts believed that the distance separating Europe, where the main part of the US airborne nuclear armada was based, from the American continent should have preserved the strategic invulnerability of the United States.

In general, the fear of human losses, even the smallest ones, has not left the American establishment since the 2nd World War. Both Truman and Marshall, and especially Eisenhower, many other statesmen and military figures who held leading positions in those years, remembered how American society reacted to the loss of US soldiers and officers in the battles of that war. Here is a specific example.

When in the Ardennes operation (December 1944) the Germans broke through the western front and the Americans suffered a large, in their opinion, loss of people - 77 thousand people, including 19 thousand killed - this caused a shock in the United States. Commander-in-Chief D. Eisenhower was in big trouble. U.

Churchill, seeing that the Wehrmacht was still very strong and capable of not only defending, but also advancing, turned to I. Stalin with a well-known letter about speeding up the Soviet offensive in the east. There is only one goal - to force the Germans to concentrate the largest number of forces on the Soviet-German front and thereby weaken the western front, removing the threat of heavy losses.
Indeed, the Vistula-Oder operation, which began 8 days ahead of schedule, pulled the main striking forces of the Wehrmacht (6th SS Panzer Army) to the east, which allowed the Allies to restore their

position.

Another example. When in May-June 1945 there were disputes between scientists and the military in the United States about how to intimidate the Japanese with an atomic bomb, scientists proposed to hold a demonstration explosion on one of the Pacific islands with the invitation of representatives of different countries, including Japan. The dispute was settled in favor of the military, eager to drop the bomb on Japan, and without warning. An important argument of the US command was the assault on the island of Okinawa by American troops, where the Americans lost 13 thousand people killed, which was also painfully perceived by the American society, which was only marginally affected by the hardships and victims of the war.

It is no coincidence that one of the Americans, the author of the book "The Good War" Studs Terkel wrote: Almost the whole world experienced terrible upheavals and horrors during the war and was almost destroyed. We came out of the war with incredible equipment, tools, labor and money. For most Americans, the war turned out to be fun ... I'm not talking about those unfortunate ones who lost their sons and daughters. But for everyone else, it was a damn good time .

Therefore, when the atomic bomb and its first carriers appeared in the USSR, the fear of a possible atomic strike, even within the borders of Alaska and Europe, where there were numerous American troops, gripped the American society. Therefore, in the event of a war and a rapid Soviet offensive to the shores of the English Channel and the Pyrenees, to oppose these tank and aviation armadas, which are already capable of carrying atomic charges, with the forces of the Allied ground forces with minimal participation of American military personnel - this is the task that the American military-political leadership has always solved. These views of that time were quite clearly and cynically formulated by Admiral Collins: "It is enough that we supply weapons. Our sons should not bleed in Europe"71. The backbone of the ground forces were to be provided by European NATO countries. At first, it was envisaged to form 80-85 divi 166

ziy. In the future, the countries of Western Europe planned to increase their land contingent, constituting the "main core of the available ground forces" of the North Atlantic bloc.

Other regions of the planet that were of great geostrategic importance were not left without attention. Back in 1947, the United States concluded the Inter-American Mutual Assistance Treaty with the countries of Latin America, in 1952 Greece and Turkey were admitted to NATO, and in 1954 the Southeast Asia Defense Treaty (SEATO) was signed.

In Europe, frightening Western European allies with the "communist danger" from the East, relying on its economic and military might, and
primarily on nuclear weapons, the US ruling circles were able to impose their strategy on NATO. In September 1950, at a session of the North Atlantic Pact Council in New York, the so-called "Forward Strategy" was adopted.

frontiers" of NATO in Europe. The main components of this strategy were: the presence of US troops in Europe; the deployment of pact troops directly on the border between the Soviet Union, pro-Soviet countries and NATO countries in Europe; the rearmament of West Germany, which was assigned the role of the main strike force in the land war and, finally, the refusal to recognize the Oder-Neisse border between Germany and Poland not as a demarcation line, but as a permanent border.In 1952, the NATO Council announced the adoption of the basic principles of the bloc's military strategy, which were set out in the document "MS- 14/1" of December 9. *p*

The Soviet Union and its "people's democracies" friendly to it watched with alarm the military preparations that were taking place across the ocean and west of the Elbe. The tests of atomic and hydrogen bombs carried out by the Pentagon during these years, the continuous increase in the power of strategic bomber aviation, the ring of air bases that were being created around the USSR, the militant rhetoric that was heard more and more clearly from across the ocean - all this demanded a response.

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ny adequate measures. The USSR was forced to accept the challenge thrown by the ruling circles of the United States, which openly declared their desire for a "transformation of the social system" in the Soviet Union. It was not our choice. The Soviet Union, in the conditions that developed after World War II, advocated the prohibition and elimination of atomic weapons. This was explained by the fact that the processes developing in the world objectively worked in favor of the USSR. The disintegration of the colonial system and the shift to the left of the masses in the capitalist countries created favorable conditions for the political and ideological offensive of the forces of socialism. In military terms, the USSR was weaker than the United States, and the victory on the ideological front of Soviet views on the development of the world was historically necessary for it.

The declaration of the meeting of the Communist Parties in 1947 spoke of the real possibilities of preventing war73. In 1948, Stalin, in response to a letter from US presidential candidate G. Wallace, wrote: “The government of the USSR believes that despite the difference in economic systems and ideologies, the coexistence of these systems and the peaceful settlement of differences between the USSR and the USA are not only possible, but also are unquestionably necessary in the interests of world peace .

Of course, although the concept of “geopolitics” was not used in the USSR at that time, in fact, the Stalinist concept of the “peace camp”, which meant the USSR and the pro-Soviet states surrounding it, was geopolitical in nature. But Roosevelt, Truman, and Churchill thought in such categories. So Stalin was no exception. Essentially, the Yalta-Potsdam system was based on the division of the world into "spheres of interest" of the great powers. And this suited the Soviet leadership quite well, since it gave time to assert its influence in Eastern Europe.

And the United States, which in the early post-war years had a monopoly on the atomic bomb, made every effort to establish Western (under its own auspices) hegemony in the world. Any actions of the USSR to consolidate the

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Views of the conquered "spheres of interest" in Eastern Europe were perceived by Washington with hostility. The United States, by extolling its military might, challenged the Soviet Union and pushed it into an arms race, confident of its victory. The challenge was accepted. And although we have always "played black" in the brutal game of military rivalry with the United States, responding to the moves of the other side, the fever of confrontation for many years swept both countries, and then other states, creating an atmosphere of a shaky, unstable world,

balancing on the brink of war. Of course, there were also people in the American government (especially from F. Roosevelt's former entourage) who were anxious about the possibility of a dangerous crisis in relations between the USSR and the USA. American scientists also pointed out the danger of improving and accumulating nuclear weapons, noting that a nuclear war would be the last war. However, nuclear euphoria prevailed over common sense.

Under these conditions, the Soviet Union began to formulate nuclear programs, rocket weapons, jet aircraft and air defense improvement.

At the same time, the USSR launched a powerful propaganda campaign to ban atomic weapons, which at first it did not have, and then lagged behind in the accumulation of a stock of atomic bombs. And she found a response in the world community. In many Western countries, the influence of the forces fighting for peace and against nuclear war has increased. Thus, the Stockholm Appeal (1950), initiated by the Soviet Union, which called for a ban on nuclear weapons and the criminalization of any government that used them first, was signed by 14 million French, 17 million Italians, 1 million British, 2 million Americans, 3 million Japanese75. Public protests in various countries put a brake on US plans to include the FRG in NATO for several years.

All this showed that even then, in the first five years after the Second World War, there were conditions for the movement of the peoples of the world against the arms race.

became a decisive factor in politics in the international arena. This opportunity, unfortunately, was not used due to the ever-increasing confrontation between the West and the East.

There were good reasons for this. The growth of the defensive might of the Soviet Union, the growth of its ability to prevent an air-nuclear attack by NATO countries or to deliver a crushing retaliatory strike, kept the American ruling circles from taking extreme measures. In August 1952, at one of the meetings of the US National Security Council, it was stated: "The growing nuclear potential of the USSR and the possible emergence of thermonuclear weapons ... significantly changes the position of the United States in the field of security and requires a thorough review of existing policies and programs, because it makes the United States very vulnerable" 76. Even then it became clear that an air-atomic attack on the USSR was incapable of ensuring the defeat of the Soviet Union in a fleeting war.

Nevertheless, the escalation of military hysteria in the United States continued, which further complicated relations between the two superpowers. In turn, the Soviet Union was not able to fully realize the enormous moral authority that it acquired during the 2nd World War. The often inadequate reaction to the actions or rhetoric of the West prevented the Soviet Union from consolidating pro-communist forces in the West and East in order to stop the accelerating Cold War mechanism. The world community was not fully aware of the danger of a global nuclear war, on the brink of which the world was teetering: there were still no forces capable of understanding and clearly explaining to the whole world the catastrophic consequences of a nuclear war for the entire globe.

Only the lessons of subsequent years, when political crises escalated into armed conflicts, as happened in Korea, during the periods of the Suez, Berlin, and Caribbean crises, made governments and peoples think about nuclear war as a general catastrophe and the need for decisive measures to prevent it.

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CHAPTER III
KOREA: TEST OF FORCE

In the early 1950s, the Cold War flared up more and more. The confrontation between the opposing sides of the bipolar world that had developed by that time was growing. The arms race that unfolded between the NATO bloc led by the United States, on the one hand, and the USSR with its allies, on the other, was gaining momentum. Conflicts of varying degrees of tension flared up and went out. Hot spots arose where the political and economic interests of the parties clashed. The national liberation struggle of the peoples of the colonial countries shook the planet. In China, the people's liberation forces won, the peoples of Indonesia liberated themselves from Dutch domination, in the 1940s and 1950s there was a war of resistance of the Vietnamese people against the French colonialists, Malay patriots fought against England, and the people of the Philippines fought the American imperialists.
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Washington and London did not want to notice the objective nature of the national liberation movement - the whole world saw the "hand of Moscow." The policy of "rolling back communism" was elevated to the rank of a priority policy of the West. The Soviet Union showed by all its actions and statements that it was not afraid of threats, supported the struggle of the peoples against the aggression of imperialism, as well as the communist parties in the capitalist countries.

Making a report in honor of the 32nd anniversary of the Great October

revolution, Secretary of the Central Committee G. M. Malenkov stated that "not we, but the imperialists and aggressors should be afraid of war" and "if the imperialists unleash a third world war, then this war will become a grave not for individual capitalist states, but for all world capitalism "1 .

The first open battle in which the main countries of the West - the United States, England and others, as well as the countries of the socialist camp - China, North Korea and the USSR, directly participated was the war in Korea that broke out in 1950 between North and South Korea.

Korea has always been a unified state in the past. After the Russo-Japanese War of 1904-1905, she fell into colonial dependence on Japan. The defeat of the Japanese troops in 1945, in which Soviet and American troops participated, led to the liberation of Korea and the division. The division into two occupation zones along the 38th parallel was thought then as a temporary measure necessary to accept the surrender of Japanese troops. A healthy basis for the revival of Korea as an independent, democratic and united state was the decision of the Moscow Conference of the Ministers of Foreign Affairs of the USSR, the USA and Great Britain, held in December 1945. It provided for the formation of an all-Korean government, which, together with the allied powers, was to develop measures to overcome the consequences of Japan's long colonial rule.

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However, the implementation of the Moscow Agreement, in particular, on the restoration of economic ties between North and South Korea, ran into difficulties. They were largely created by the presence of Soviet and American troops on the peninsula.

In May 1948, separate elections were held on the territory of South Korea under the control of a UN commission established at the initiative of the United States. Lee Syngman, a former professor at the University of Washington, was elected to the post of head of state. The government of South Korea declared itself the government of the whole country, which, of course, the communist forces of the North did not agree with. In the summer of 1948, they organized elections for the Supreme People's Assembly of Korea, which on September 9 proclaimed the Democratic People's Republic of Korea (DPRK). Thus, a pro-Soviet communist state was formed in the north of the country. There was a political and legal formalization of the split of Korea into two states, and the government of each of them declared itself, according to its constitution, the only legal one and intended to extend its power to the whole of Korea.

1. North and South: who is first?

In 1948, at the request of the Supreme People's Assembly of the DPRK, all Soviet troops were withdrawn from the North. The Americans withdrew their troops from South Korea only in the summer of 1949, but left about 500 advisers there; military advisers of the USSR remained in the DPRK.

With the development of the Cold War and the confrontation between the USSR and the USA, the situation on the Korean Peninsula became more and more aggravated. Armed clashes on the 38th parallel, along which the border between the DPRK and the Republic of Korea passed, happened more and more often.

All this took place against the backdrop of important political changes taking place in the Far East region. In the fall of 1949, the People's Revolution won in China.

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tion, and the Communists led the leadership of a new people's democratic state - the People's Republic of China. In February 1950, the PRC

signed an agreement on friendship, alliance and mutual assistance with the USSR. The union of the USSR and the PRC and the fact that both communist powers strongly supported the people's democratic regime in the DPRK encouraged the leadership of North Korea to unite the entire country by military means. But, of course, the head of the DPRK, Kim Il Sung, wanted to enlist the approval of his military campaign to the south from the PRC and the USSR.

For Kim Il Sung, the support of the USSR was especially important, which, having restored its national economy after World War II, was one of the most powerful military powers in the world. Kim Il Sung remembered that on October 13, 1948, in a telegram of greetings to the government of North Korea on the occasion of the proclamation of the DPRK, I. V. Stalin limited himself to wishing the new government success "in its activities on the path of national revival and democratic development," further relations between the two states . Therefore, the head of the DPRK government persistently sought Moscow's consent to the visit of the DPRK government delegation to the Soviet Union. The leader of the North Korean communists needed to find out Stalin's position in relation to his country.

In January 1949, such consent was obtained, and on March 5 of the same year, a government delegation of the DPRK, headed by Prime Minister Kim Il Sung and Foreign Minister Pak Hyun Yong, arrived in Moscow. The delegation also included the DPRK Ambassador to the USSR Du Yong Ha. Apart from Stalin, Minister of Foreign Affairs A.Ya. Vyshinsky and Soviet Ambassador to the DPRK T.F. Shtykov took part in the negotiations on the Soviet side. On March 5–18, intensive negotiations were held between the two countries. As a result, 11 agreements were concluded. They concerned economic and cultural cooperation, the provision of technical assistance to North Korea, the expansion of lending to trade and

payments. The conditions for the work of Soviet specialists in the DPRK were developed. Special agreements provided for the temporary deployment of a Soviet naval unit in the port of Seishin and the construction of a railway from Kraskino (USSR) to Khonio (DPRK). A Soviet trade mission was created in Pyongyang, and an air line was established between the USSR and the DPRK. All agreements, except economic and cultural, were secret. The USSR agreed to supply equipment and weapons to the DPRK, paid for in gold and goods.

Since the end of 1949, relations between the two Korean states have become more and more aggravated. Both governments claimed the unification of Korea, each under its own auspices. In October 1949, South Korean President Lee Syngman, in a conversation with American sailors in Inchon, said that "if we have to solve this problem on the battlefield, we will do everything that is required of us"3 . On December 30, at a press conference, he hardened his position, saying that "we should unite South and North Korea by our own efforts"4 . On March 1, 1950, speaking at a rally in Seoul, Syngman Rhee proclaimed that "the hour of Korean unification is approaching . " His Minister of Defense was also not shy about expressing himself on February 9 of the same year, he said: "We are in full readiness to fight for the restoration of the lost territory and are just waiting for the order" 6 .

The United States also did a lot to, as the then American ambassador to Seoul, J. Muccio, said, "to speed up the time for a general offensive on the territory north of the 38th parallel." The chief US military adviser in South Korea, General W. Roberts, in January 1950, 5 months before the start of the war, at a meeting with South Korean ministers, said that "we will start the attack," but

"it is necessary to create a pretext for an attack so that it has a justified reason" 7 .
To the north of the 38th parallel, very warlike plans were also hatched, but this was done in compliance with

secrecy, without broadcast statements. Intensive deliveries of weapons, military equipment, and ammunition from the USSR to North Korea continued throughout 1949.

1950 brought new nuances. On January 19, the Kremlin received an important message from Pyongyang. Soviet Ambassador Shtykov reported:

“In the evening, a reception was held at the Chinese embassy in connection with the departure of the ambassador. During it, Kim Il Sung told me the following: now that the liberation of China is being completed, the issue of the liberation of Korea is next in line. The guerrillas will not solve the case. I stay up at night thinking about reunion. Mao said that there was no need to advance to the South. But if Lee Syngman advances, then it is necessary to go on the counteroffensive. But Lee Syngman is not advancing ... He, Kim Il Sung, needs to visit Stalin and ask permission to attack to liberate South Korea. Mao promised help, and he, Kim Il Sung, would meet with him. Kim Il Sung insisted on a personal report to Stalin on permission to advance to the South from the North. Kim Il Sung was in a state of some intoxication and carried on conversations in an excited state .

Stalin was in no hurry to answer. Exchanged messages with Mao Zedong, who believed that the issue should be discussed. Only after that, on January 30, a cipher went from Moscow from Stalin to Pyongyang: "I received a message dated January 19, 50. Such a big deal needs to be prepared. The matter must be organized so that there is no big risk. Ready to accept ... 9 "

In Pyongyang, the telegram was regarded as consent to the operation on the condition of achieving guaranteed success. After another consultation with Beijing, on February 9, Stalin agreed to the preparation of a large-scale operation on the Korean Peninsula, approving Pyongyang's intention to unite the homeland by military means. Following this, deliveries from the USSR of tanks, artillery, small arms, ammunition, medicines, and oil increased sharply. At the headquarters of the North Korean army, with the participation of Soviet advisers, the development of

offensive operation plan, there was an accelerated formation of several new Korean formations.

But Stalin, having given his consent to Kim Il Sung's campaign, still hesitated. He was afraid of US military intervention in the conflict between North and South Korea, which could lead to unpredictable consequences, and perhaps even to a direct confrontation between the two superpowers, which threatened a nuclear war. Therefore, in his opinion, Moscow had, on the one hand, to secure the consent of Beijing and support for the military actions of the DPRK to unify Korea, and on the other hand, to stay away from the impending conflict, if possible, in order to avoid the risk of being drawn into a war with the United States in the event of their interference in Korean affairs. The Kremlin was more and more inclined to think that Kim Il Sung's march to the south could be crowned with success if he acted energetically and quickly. In this case, the North Korean army will capture the southern part of Korea before the Americans intervene in the course of events .

The position of the Americans, as it seemed to Moscow, gave hope that South Korea was not one of the most important American strategic priorities in the Far East. Thus, on January 12, 1950, US Secretary of State D. Acheson declared that South Korea was not included in the US "defense perimeter" in the Pacific region. "My speech," he recalled

subsequently, opened the green light for an attack on South Korea." 11 Of course, this statement by Acheson was taken into account by the leaders of North Korea. However, another important document of the US government was not taken into account - and most likely they did not know about the atom. In March 1950 1999, the US National Security Council issued a directive, NSC-68, which recommended that the government firmly contain communism throughout the world.The directive stated that the USSR was more likely to engage in "patchwork aggression" than in all-out war, and any failure by the United States in providing rebuffing this kind of aggression can lead to "a vicious circle of taking too hesitant and belated measures" and a gradual "loss of positions under forceful pressure" 12 .

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The US, the directive pointed out, must be ready to confront the USSR anywhere in the world, without making a distinction between "vital and peripheral interests"13. On September 30, 1950, US President G. Truman approved this directive, which radically changed the US approach to protecting South Korea.

But all this became clear later. And then, on April 8, 1950, Kim Il Sung, Pak Hyun Yong and T. F. Shtykov secretly arrived in Moscow14. Kim Il Sung urged Stalin that Korea could be quickly unified through a short-term military campaign and that as soon as the DPRK troops entered South Korea, a nationwide uprising against the regime of Rhee Syngman would begin there. But Stalin still hesitated. He decided to once again consult with Mao Zedong to be sure of Chinese support for an attack on South Korea. On May 14, 1950, a cipher was sent from Stalin stating that, due to the changed international situation in Moscow, they agreed with the proposal of the Koreans to begin unification, but on the condition that the issue should be finally resolved by the Chinese and Korean comrades jointly, and in case of disagreement Chinese comrades, the solution of the question must be postponed until a new discussion .

Beijing quickly agreed to Moscow's proposal, preparations for the operation began to be carried out at an accelerated pace, and already on May 30, Shtykov reported to Moscow:

“Kim Il Sung reported that the Chief of the General Staff had completed the development of a principled operational decision (together with the Soviet adviser Vasilyev) for the offensive. He, Kim Il Sung, approved it. Organizational preparation ends by June 1. Of the 10 divisions, 7 are ready for offensive operations. It will rain in July. Generals Vasiliev and Postyshev reported to me that it would then take more time to concentrate. The General Staff proposes to start at the end of July.

My opinion: we can agree with this term. Koreans ask for gasoline and medicines. I ask for urgent instructions.
May 30, 1950 Shtykov"17 .

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The answer followed quickly. The authority approved the ambassador's proposals, promising to expedite the delivery of medicines and oil. Intensified preparations by the North Korean side did not go unnoticed in the south. Both sides 38-
th parallel concentrated troops. Border skirmishes intensified. The Americans also stepped up. A few days before the start of the war, John F. Dulles, then State Department adviser, arrived in Seoul. He inspected South Korean troops around the 38th parallel and said that if they managed to hold out for at least two weeks after the outbreak of hostilities, "everything will go smoothly." "I attach great importance to the decisive role that your country can play in the great drama that is about to unfold,"

wrote Dulles to Syngman Rhee before leaving Seoul18 .

Meanwhile, in the DPRK, preparations were being completed for the first large-scale offensive operation against the troops of Rhee Syngman. But it was very important for Stalin to take all measures to prevent the United States from accusing the USSR of complicity in the North Korean aggression. He really did not want to be caught in the direct participation of the USSR in the preparation of the war. A number of documents testify to this.

Five days before the start of the war, on June 20, 1950, Shtykov sent a telegram to Stalin: “Kim Il Sung asked me to convey: ships are needed for the offensive and landing. Two ships arrived, but the crews did not have time to prepare. He asks ten Soviet advisers to use on ships. I think , the request must be granted. The answer, signed by A. A. Gromyko on June 22, came quickly: "Your proposal is being rejected. This gives rise to interference."

Encouraged by the support of his great neighbors - the USSR and the PRC, Kim Il Sung ordered the invasion. At dawn on June 25, 1950, the troops of the Korean People's Army (KPA) launched an offensive deep into the Republic of Korea. When the North Koreans developed an offensive to the South, Kim Il Sung asked to send Soviet advisers directly to the units fighting on the front lines. Shty

kov, in a conversation with the Korean leader, promised that he would persuade Moscow to agree. There was a shout from the Kremlin.

"Pyongyang. Soviet Ambassador.

Apparently, you are behaving incorrectly, as you promised the Koreans to give advisers, but we were not asked.

You need to remember that you are the representative of the USSR, not Korea.

Let our advisers go to the headquarters of the front and to the army groups in the required civilian uniform as correspondents for Pravda

quantity.

You will personally answer to the Soviet government for ensuring that they are not taken prisoner .

As if to develop the meaning of this telegram, Soviet military advisers KPA battalions and regiments were recalled to the USSR.

The leaders of the Soviet state did everything possible so that the citizens of the USSR could not fall into the hands of the enemy, especially the Americans. Thus, in the first days of the war, many Soviet people of Korean origin sent applications to the highest authorities with a request to send them to help the "Korean brothers" in protecting their historical homeland from the "barbaric attack by the American imperialists"20. They were denied this. Soviet ships that left the Chinese port of Daylian on June 26 were ordered to "immediately return to their defense zone"21 .

When North Korean troops took Seoul on June 27 and the Soviet chief military adviser, General Vasiliev, wanted to go there to help the North Korean military command in commanding troops, Moscow did not give him permission to do so. And in the future, everything was done to prevent capture

Soviet military advisers.

However, with the beginning of the war, despite the major successes of the North Korean troops, foreign policy events did not develop as expected in Pyongyang. Already from the first days of the war, the internationalization of the conflict took place as a result of the active intervention of the United States in it. American air force and navy operated from day one

war, but were used to evacuate American and South Korean citizens from the frontline areas. However, after the fall of Seoul in Korean

US ground troops landed on the peninsula. The US Air Force and Navy also launched active military operations against the troops of the DPRK.

In order to prevent the American participation in the war from being interpreted by the world community as interference in the internal affairs of Korea, the US political leadership took care to give the actions of its troops a legal character from the point of view of international law. On July 7, 1950, the UN Security Council (SC) met to discuss the Korean question. The USSR then boycotted his work in protest against the illegal presence of a Kuomintang member as a representative of China. The United States was quick to take advantage of this by putting to a vote the question of turning the American occupying forces in Korea into "UN troops." This action could have been prevented by using the right of veto, but the Soviet representative to the UN, Ya. A. Malik, on Moscow's instructions, left the meeting of the UN Security Council, which was a major miscalculation of Stalin's diplomacy. In addition to the United States, 15 more states were involved in the campaign against communism, although American troops, of course, formed the basis of the interventionist corps22 .

The Korean War can be divided into 4 stages.

First: June 25 - September 15, 1950 - the offensive and general offensive of the KPA from the line of the 38th parallel to the Naktong River.

Second: September 16 - October 24, 1950 - the counteroffensive of the American and South Korean troops and the forced withdrawal of the KPA from the line of the Naktong River to the northern regions.

Third: October 25, 1950 - July 9, 1951 - the counteroffensive and general offensive of the KPA and the Chinese People's Volunteers (CPV), the liberation of the territory of the DPRK and part of South Korea.

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Fourth: July 10, 1951 - July 27, 1953 - confrontation between the parties at the turn of the 38th parallel.

At the first stage, the US troops managed to somewhat slow down the advance of the Korean People's Army, but it, albeit slowly, continued to move forward. The Syngman Li government was forced to flee to Busan, a city on the southeast coast, where by September 1950 only a small patch of territory remained in its hands.

By this time, the American command had prepared a powerful counterattack. On the Pusan-Tagu bridgehead against the 70,000-strong North Korean army, twice as large forces of American and South Korean troops were concentrated, which, moreover, had a multiple superiority in

technique.

On September 15, after the landing of the 50,000th 10th Armored Corps in the rear of the North Korean army from the sea near Inchon, a counteroffensive of the US-South Korean troops began in the south. As a result, significant KPA forces were surrounded and, with heavy fighting, were forced to break through to the north, suffering heavy losses. Seoul had to leave.

At the 5th session of the UN General Assembly, the Americans achieved agreement to cross the 38th parallel. American and South Korean troops quickly moved north to the borders of the DPRK. There was a threat of defeat and loss of independence. It became clear that only immediate help from the USSR and the PRC could save the situation. This was understood in Moscow, and in Beijing, and in Pyongyang.

With the outbreak of the war in Korea, the Chinese leadership sent its military observers to the DPRK on June 30, and in August concentrated a 250,000-strong group of Chinese troops in the area of the Sino-Korean border, near the Yalu River.

Mao Zedong ordered Gao Gang, the leader of North China, to put her on alert by the end of September. On September 17, a group of PRC military specialists arrived in the DPRK to study the conditions for the introduction of Chinese troops if necessary .

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Meanwhile, American and South Korean troops, moving north, crossed the 38th parallel on October 1. On the same day, Shtykov sent a letter to Stalin from Kim Il Sung with a desperate request for help. North Korean leader
communists and his foreign minister wrote:

"[...] Dear Comrade Stalin! If the enemy forces offensive operations against North Korea, we will not be able to stop the enemy on our own. Therefore, dear Iosif Vissarionovich, we cannot but ask you for special help. In other words, at the moment when enemy troops cross the 38th parallel, we really need direct military assistance from the Soviet Union.

If for some reason this is not possible, then help us create international voluntary units in China and other people's democracies to provide military assistance to our struggle .

On the same day, Mao Tse-tung received a similar letter. For Moscow and Beijing, the time has come for a decision. Stalin's worst fears came true: Kim Il Sung's plan did not work, the US intervention and the advance of the "UN troops" to the north confused all the cards of the Soviet and Chinese leadership. Pyongyang needed urgent help, but drawing the Soviet Union into the flaring conflict was by no means part of Stalin's plans. It was necessary to encourage the Chinese to do this, leaving the Soviet intervention as a last resort. Heavy thoughts seized the Kremlin politicians. And in this situation, a life-saving call came from Beijing. On October 2, Mao informed the Soviet leader that the leadership of the PRC had decided to provide assistance to the DPRK with "volunteer" formations who were ready to enter North Korea on October 15. Mao announced that initially 5-6 divisions of "Chinese People's Volunteers" (CPV) would enter Korea, thereby showing the USA. that the situation has changed. After they, having received enough Soviet weapons, prepare, they can go on the offensive 186

nie. The Chinese leader also asked Stalin to help the Soviet air force and navy cover the Chinese troops in Korea and the industrial regions of North China.

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Stalin, apparently, took this message with great relief. About it
evidenced by his reply of 5 October. It stated in particular:

"The United States, because of prestige, may be drawn into a big war, and, consequently, China will be drawn into the war, and at the same time the USSR, which is connected with China by a pact of mutual assistance, will also be drawn into the war. Should we be afraid of this? In my opinion, it should not, because together we will be stronger than the USA and England, and other capitalist European states without Germany, which cannot now provide the USA with any help, do not represent a serious military force. If war is inevitable, then let it be now, and not in a few years, when Japanese militarism will be restored as an ally of the United States ... "26

Mao replied that he was "very glad that ... the answer refers to the joint struggle of China and the USSR against the Americans ... Of course, if you fight, then you need to fight now ... It is advisable to send not five or six divisions, but at least at least nine..."

On October 8, Mao Zedong's envoys Zhou Enlai and Lin Biao arrived at Stalin's Sochi, where he was on vacation. The interview took place on the night of October 9th.

The head of the Soviet state somewhat moderated the appetites of the visitors. He stated that the USSR was ready to supply weapons for a total of 20 divisions of "Chinese volunteers", but did not have enough forces to cover the Chinese and Korean troops with aviation. He promised to provide air defense for the industry of North China and the areas bordering the DPRK, but all this will take time27 .

In Beijing, "having received such an answer, they thought. Some members of the Politburo expressed fear that the PRC could be drawn into a long conflict with the United States, which would sharply slow down the industrialization of China that had begun. Uncertainty promises of Soviet aid disappointed28 .

A string of meetings of the Politburo of the CPC Central Committee began on this issue. Time, however, hastened. "UN troops" confidently moved north. Finally, on October 14, members of the Politburo came to a unanimous opinion: to occupy the mountainous region between Pyongyang and Wonsan with troops. If the US troops do not cross this line within six months, then the "Chinese volunteers" will gain time in order to be ready to solve the tasks that will be assigned to them by the leadership of the PRC. Peng Dehui was appointed commander of the "Chinese volunteers".

But events developed rapidly: the Americans were approaching the Chinese border and Pyongyang. Mao called Zhou Enlai in Moscow and said that the "Chinese volunteers" would enter the DPRK if the USSR immediately supplied weapons not to 6, as previously thought, but to 15 divisions of Chinese troops. However, Peng Dehui insistently requested that the invasion be postponed until winter, since the Chinese troops did not have aviation and anti-aircraft artillery, and the American Air Force dominated the air. But there was no more time. Mao ordered the introduction of "Chinese volunteers" into Korea, first on the 17th, then on the 18th, and finally on October 19th. On that day, the first units of the CPV crossed the Yalu River.

Meanwhile, South Korean and American troops took Pyongyang on October 23, and on October 25 a huge mass of Chinese troops poured over the bridges across the Yalu into North Korea. The war has entered a new phase. The offensive was long, difficult, painful. The “volunteers” and the KPA countered the dominance of the enemy in the air with trench and gallery fighting, when entire companies, battalions and regiments burrowed into the ground so that neither bombs nor napalm could reach them.

Since November 1950, the industrial facilities of Northern China, the bridges across the Yalu and the territory of the DPRK adjacent to the border began to cover from the air the urgently formed Soviet 64th Fighter Air Corps, which operated successfully in the zone assigned to it. During

fighting in the winter and spring of 1951, Pyongyang was liberated, Seoul, Incheon, Wonju and other cities were taken again. The pendulum of war has swung the other way. However, then the attacks of the southerners followed, and by June 1951 the front line almost froze, tensing and barely hesitating at the 38th parallel.

Mao's decision to intervene in the Korean War was dictated by several considerations. He hoped that the victorious advance of the Chinese troops would raise the international prestige of revolutionary China; will show the world that the PRC is a force capable of stopping the Americans. There were other goals: to crush the opposition in the Politburo by success at the front, and also to prevent the United States from reaching China's land borders, which would pose a threat to China's national security. Mao believed that this war was a clash of wills. Knowing the sensitivity of Americans to human losses, he believed that, having lost 40—

50 thousand people, the United States, under pressure from public opinion in the country, will stop

war. Seeing that his expectations were not being met, in March 1951 he raised the bar for American casualties to 100,000 .

The failure of the spring-summer offensive of the KPA and the CPV convinced Mao that it was impossible to win the war and that it was necessary to negotiate. He first expressed this idea on May 26, 1951, and on the 31st he already advised his colleagues in the Politburo to reassess the situation. As for Stalin, realizing that it would not be possible to win the war, he supported the idea of negotiations, intending to achieve better peace conditions in the course of diplomatic clashes than on the battlefield. On June 3, 1951, negotiations on this issue were held between Kim Il Sung, Mao Zedong and Chou En-lai, and in mid-June, Sino-Korean-Soviet negotiations took place. On June 23, the Soviet representative to the UN, Malik, officially proposed to start negotiations.

This was preceded by informal meetings between Malik and J. Kennan on May 31 and June 5. Malik told him that the USSR wanted to end the conflict, but advised him to contact the governments of the PRC about negotiations.

and North Korea. The preliminary agreement allowed the Soviet representative to the UN in his statement of June 23 to say "that the Soviet peoples believe that, as a first step, negotiations should be started between the belligerents on a ceasefire, on a truce with a mutual withdrawal of troops from the 38th parallel "31. This statement was also supported by China. On July 10, negotiations began in Kaesong (DPRK) between the Republic of Korea and the United States, on the one hand, and the PRC and the DPRK, on the other. But things did not go beyond the discussion of the demarcation line. Already in August, American planes and planes of the PRC violated the status of neutrality of the negotiations zone, and they were interrupted. Then they resumed again in Panmynchzhon, however, they were interrupted there more than once. As a result, the conflict settlement process dragged on for two years. All this time, there were small skirmishes of ground units, but a fierce air war was going on, in which the main role was played by American aviation and the Soviet 64th Fighter Air Corps.

2. Soviet pilots in the skies of North Korea

In the Korean War, which took on the character of an international conflict, the air forces of both sides played a significant role. US aviation was the main striking force of the "UN armed forces" that helped South Korea. She acted both at the front and on objects of the deep rear. Repulsing air strikes by the US Air Force and its allies has become one of the important tasks of the North Korean troops and Chinese volunteers throughout the war years.

The US command concentrated in South Korea and adjacent areas most of its Air Force of the Far East zone, which by the beginning of the war had 1,172 aircraft32. The main forces of tactical aviation were combined into the 5th Air Force stationed in Japan, which included

wings of tactical bombers, fighters, tactical fighters and reconnaissance aircraft. Strategic aviation was included in the specially created Provisional Bomber Command, which consisted of several wings. In addition, in the Far East there were associations, formations and units of transport airborne, aircraft carrier aviation and air defense aviation, which were also involved in combat missions in the Korean War.

The South Korean Air Force existed in the form of a small number of T-6 training aircraft.

At the beginning of the war, 44 squadrons of the US Air Force of the Far East zone (657 combat aircraft) were used against the DPRK, but during the course of the war these forces were steadily increased.

By the end of 1951, there were already 1,440 combat units operating against the KPA and CPV. US aircraft, and by the end of the war their number increased to 240033·

US bomber aviation was armed with B-29 strategic bombers and B-26 tactical bombers; 82), and subsequently reinforced by jet fighter-interceptors, mainly F-86s, as well as F-94 night interceptors. Piston aircraft, according to their TTD, could reach speeds in the range of 570-740 km / h, had a practical ceiling of 7300-13,400 meters. The range of strategic bombers was 5200-7300 kilometers with a bomb load of 9070 kilograms; tactical bombers - 2100-2700 kilometers with a bomb load of 2700 kilograms; fighters - 2000-3800 kilometers (bomb load - up to 900 kilograms).

Jet fighters had the following performance data:
maximum speed - 900-1080 km / h; practical ceiling - 13,500-14,000 meters;

maximum flight range - 2100-2400 kilometers.

All of them had small arms (6x12.7) and rocket (8x127; 10x127; 16x127) weapons.

By the beginning of the war, the DPRK Air Force had a little more than 150 aircraft34

The KPA and CPV air forces were armed with Soviet-made aircraft: IL-10 attack aircraft, Yak-3, Yak-9, Yak-11, La-9, La-11 piston fighters, and from November 1950 - jet MIG-15 (in further and MIG-15bis).

Combat operations by aviation of the belligerents began from the first days of the war and steadily expanded as military events developed. Already on June 25, 1950, at 13:15, two low-flying aircraft appeared over the South Korean airfields of Seoul and Kimpo. They were Yak-9s with North Korean Air Force markings (a red star in a white circle). Having made a thorough inspection of both airfields, they retired in a northerly direction. However, two hours later, the "yaks" returned in a reinforced composition. Two of them swept over Kimpo several times, spraying the airfield with cannon and machine-gun fire. The shells damaged the control tower and hit the fuel storage, which flew into the air with a terrible roar. As a result of the raid, an American Air Force C-54 transport aircraft located at the airfield was also damaged. Four other "yaks" attacked the Seoul airfield. They damaged seven T-6 training aircraft. Then, at 1600, a new attack was made on Kimpo. This time, the attackers managed to burn the C054 aircraft damaged in the previous raid. In the middle of the day on June 27, five Yak-3s appeared over Seoul, approaching Kimpo. Three Yaks were shot down in combat with American F-82 jet fighters. On the same day, the North Korean Air Force attempted to storm the airfield with eight Il-10s. After a brief dogfight, four of the eight aircraft were shot down by F-80 jets, while the rest returned to their base at Heijo, near Pyongyang.

Although the forces were clearly unequal - US jet fighters, whose pilots also had, as a rule, the experience of the 2nd World War, acted against the piston aircraft of North Korea, the pilots of North Korea more than once

managed to be successful. For example, on June 28, at 13:30, taking advantage of the fact that the main forces of the F-80 and F-82 were busy providing cover for transport aircraft taking American citizens out of Korea, the Yak-9 four attacked the Suwon airfield. They managed to destroy one F-82 and a light bomber B-26, which were in the parking lot. A little later, by the middle of the same day, three pairs of "yaks" set fire to the C-54. The following day, the Suwon airfield was attacked six more times, but this time the F-80s were in the air and two North Korean aircraft were destroyed. On June 29, American B-26 bombers attacked North Korean airfields around Pyongyang and destroyed 25 aircraft.

By this time, American aviation had already launched combat operations on a large scale. The main objects of strikes for strategic bombers were administrative, political and industrial centers, railway junctions and large bridges, airfields, power plants,
settlements.

Tactical aviation operated against the KPA troops in the area of concentration, communications and crossings, carried out the tasks of gaining air supremacy, isolating the combat area and preventing the approach of the KPA and CPV reserves.

Having air supremacy from the very beginning of the war, American aircraft could operate at considerable depth, delivering strikes simultaneously on a large number of targets.
In the first months of the war, when the KPA Air Force did not yet have jet fighters, and there was little anti-aircraft artillery, American aviation, including strategic aviation, operated from low and medium altitudes in the daytime without fighter cover. Yes, Sep 17
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In October 1950, 100 V-29s heavily bombarded a concentration of KPA troops over an area of 70 square kilometers for 2 hours. 800 tons of bombs were dropped35. During that period, American bombers operated, as a rule, from one direction in large groups of 40-50 aircraft or carried out echeloned operations in close formations. The bombing was carried out from a height of 1.5-4.2 kilometers from a horizontal flight. Tactical aircraft attacked targets from a dive, making several approaches to the target from a height of 1-2.5 kilometers. The KPA Air Force, due to its small number, carried out mainly air defense of rear facilities, allocating only an insignificant number of fighters to cover the troops36 .

The DPRK Air Force had two main tasks: combating enemy aircraft and supporting its ground forces. However, these tasks were hampered from the very beginning by the rapid deployment of American military aircraft in South Korea. After several massive American air raids on the base airfields around Pyongyang, North Korean aviation switched to the tactics of the Soviet Air Force during the 2nd World War: the aircraft were dispersed on small, well-camouflaged runways located near the front line, from where they made unexpected sorties, operating mainly at low altitudes, - and immediately went back. These attacks continued throughout July. The time for them was chosen tactically very correctly: the DPRK fighters took off only when all the nearby American fighters finished combat patrols and they had just enough fuel left to return to base. In two cases, due to such tactics, F-80 jets, taken by surprise by North Korean piston aircraft, were forced to flee, as they

there was too little fuel to take the fight. Little by little, however, the offensive nature of North Korean air operations was fading away. By July 20, as a result of a series

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American air and naval strikes on the main North Korean airfields, including those captured during the offensive, destroyed 49 enemy aircraft on the ground, 9 in the air, and more than 30 aircraft were seriously damaged. In early August, as the main North Korean airfield, Suwon, was reduced to rubble by American fighter bombers, the main force of the North Korean air force was concentrated on the captured Kimpo airbase.

By the end of August, American aerial reconnaissance established that the strength of the North Korean Air Force was no more than 20 aircraft. Left without air cover, the North Korean ground forces could not resist the fighter bombers, which turned their and massive raids enemy formations communications into a continuous fiery mess. They also had no protection from deep B-29 raids that destroyed industrial facilities of military importance in the north of the country. Still putting up stubborn resistance, but unable to contain the counteroffensive of the combined US-South Korean forces, North Korean troops began to withdraw from the occupied areas. In mid-October, the troops of the United States and South Korea were rapidly moving north, entered the territory of North Korea, but then the situation changed dramatically.

On November 1, a B-26 bomber was attacked by 3 Chinese Yak-9s south of the Yalu River. On the same day, but later, 9 F-80s attacked the Sinuiju airfield on the border with China and destroyed or seriously damaged 7 of the 15 "yaks" that were based there. One of the F-80s was shot down by anti-aircraft fire.
In the afternoon of the same day, a link of "Mustangs" (P-51), patrolling along the river, was suddenly attacked by 6 high-speed jets that appeared from Manchuria. This time, the Americans managed to get away, but they realized that from that moment on, the air war was no longer a pleasure trip. MIG-15s appeared in the skies of Korea.

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Their appearance was dictated by a number of military-strategic reasons. After the "Chinese People's Volunteers" entered the war, formations of Chinese troops poured into North Korea in a wide stream. They crossed the border river Yalujiang along railway and road bridges, the largest of which were between the Chinese city of Andong and the Korean Sinuizhzhu. Then they followed the front line along the roads of the western part of the DPRK, the number of which was very limited.

Since November 1950, these bridges and roads have become the primary targets of American air strikes. At the same time, B-29 strategic bombers in large groups raided bridges across the Yalu, operating under the cover of F-80s and F-84s, and B-26 tactical bombers controlled roads in Korea, especially at night, since the bulk of Chinese troops moved along them. only after dark.

The dominance of American aviation in the air created the danger of destroying strategic bridges and hampered the movement and maneuver of Chinese and North Korean troops in the frontal zone. In this regard, the Chinese and North Korean leadership turned to the government of the USSR with a request to attract Soviet jet fighter aircraft to cover strategic facilities in the DPRK, adjacent to China. Since the Soviet Air Force already had

The MIG-15 jet fighters, which the aviation of the PRC and the DPRK were just mastering, could only be covered by Soviet fighter air formations to cover strategic facilities in North Korea.

Responding to the request of the governments of the PRC and the DPRK, the Soviet Union sent fighter aviation formations to Northeast China, on the basis of which the 64th separate fighter air corps of the Soviet Air Force was formed on November 14, 1950 (corps commander Major General Aviation I. V. Belov) . The main task of the corps was to cover the strategic bridges across the Yalujiang from enemy air raids,

Suphun hydroelectric power station on the same river, a system of irrigation dams, communications and airfields on the territory of the DPRK within a radius of 75 kilometers from the Sino-Korean border.

The composition of the air corps was unstable. The Soviet command then could use only one airfield - Andong on the Korean-Chinese border. It housed 2 regiments of the 28th and 151st air divisions of the SA Air Force. At the end of November, both divisions, together with the 5th division, were merged into the 64th Fighter Air Corps.

As hostilities intensified, the composition of the 64th Air Corps increased. In July 1951, a new airfield in China went into operation - Miaogou. This made it possible to increase the number of crews involved in combat operations from 2 to 5 air regiments and expand the range of tasks: to cover communications in North Korea at a depth of up to 75 kilometers from the Chinese border37 .

In September 1951, for example, the 64th Fighter Air Corps included 3 aviation (151st, 303rd, 324th), 2 anti-aircraft artillery (87th and 92nd) divisions, armed with 85-mm guns and 37 -millimeter automatic anti-aircraft installations, radar detection and gun guidance, and an aviation technical division, 2 separate regiments: "night lights", searchlight (to ensure the actions of crews at night and create a light field in the area of crossings across the Yalu River and on approaches to them) , hospitals and other units of providing services.

In 1952, the corps numbered about 26 thousand people. This number of personnel was maintained until the end of the war in Korea.

However, the indicated number of forces and means was far from corresponding to the tasks that Soviet pilots and anti-aircraft gunners were supposed to solve. Only half of the divisions had three regiments. The rest are two. According to the state, they were supposed to have only 32 pilots each. The same unenviable situation exists for anti-aircraft gunners.

Despite these and many other shortcomings and omissions, Soviet aviators acted quite successfully.

This was largely facilitated by the high flight performance of the latest MIG-15 jet fighter aircraft of that time and its next modification MIG-15bis. The MIG-15 was superior in its main characteristics to similar enemy aircraft, with the exception of the F-86. Compared to it, the Mig had the best rate of climb and thrust-to-weight ratio, but was somewhat inferior in maneuverability and range. Their maximum flight speeds were approximately equal. The axial engine provided the F-86 with a better aerodynamic fuselage shape. The fighter picked up speed faster when diving, and had a lower “drawdown” than the MIG-15 when withdrawing from a dive.

The armament of the MIG-15 was more powerful and consisted of two 23-

millimeter and one 37-mm well-placed guns. US fighters and fighter-bombers each had 6 large-caliber machine guns - 12.7 mm Colt Browning, significantly spaced along the wing. A notable advantage of the F-86 was better sighting equipment, especially a radio range finder that automatically corrected for range. On the MIG-15, the distance to the target was determined visually and the data was entered into the semi-automatic sight manually.

Both Soviet and American fighters were modernized during the fighting. So, since April 1951, MiGs began to be equipped with VK-1 engines with greater thrust. The aircraft was named MIG-15bis. The ejection seats were equipped with parachute opening machines at a predetermined height. Subsequently, the MIG-15bis were equipped with special equipment that provided the pilot with the necessary information about the air enemy.

The management of the regiments and divisions of the aviation corps was strictly centralized. This was dictated by the need to quickly concentrate the maximum possible forces of Soviet fighters to repel massive enemy air raids, which had

significant numerical superiority, combat and operational initiative, a lot of time to prepare and organize air raids.

The command post (CP) of the corps had much more information about the enemy than the command post of air formations, and had two auxiliary control posts (APU) on the territory of the DPRK. They were equipped with locators and radio stations, which were staffed by experienced officers who were able to point the MIG-15 at a visually observed enemy, as well as warn their pilots of possible dangers. All this made the control of the actions of fighter aviation from the command post of the corps quite effective. The TLUs were located in the area of crossings near Anshu (Anchzhu) and Pyongyang. The command post of the 64th Fighter Air Corps (JAC) was located near Andong.

In order to respond as quickly as possible to enemy actions, a significant part of the fighters in the divisions participating in the hostilities were in a state of high combat readiness: the pilots were on duty in the cockpits of the aircraft with their radios turned on. The order to take off was transmitted by radio directly to the commanders of the duty groups, and the rest of the forces were on high alert or immediately took off after the duty units. All combat commands were transmitted by radio. Wired communication was used only as a backup between the command post and the headquarters of the formations.

Combat missions were set when the fighters were already in the air. They were refined and even radically changed as the general air situation became clearer and more specific data about the enemy's intentions were obtained.
With the appearance of Soviet jet aircraft in the skies of North Korea, the air war took on a completely different character. On November 6, the US Joint Chiefs of Staff decided to proceed with the destruction of the bridges across the Yalu, through which parts of Chinese volunteers were transported to North Korea.

It was about two bridges of strategic importance connecting the cities of Andong (PRC) and Sinuijzhu (DPRK). These bridges were up to 1200 meters long. One of them was a combined railway and road bridge, the other was a double-track railway. IN

Sinuichu at that time was the seat of the government of the DPRK. On November 8, 1950, 70 B-29s dropped 584 tons of bombs on Sinuiju. The strategic air raid was preceded by assault strikes on North Korean air defense facilities in the Sinuijju area by F-80 (Shooting Star) jet fighters and P-51 (Mustang) piston fighters38. Soviet MIG-15s from the Andong airfield entered the battle with them. It was the first dogfight between jet fighters in history. Soviet pilots had superiority in military equipment, American pilots (almost all participants in World War II and previous operations in Korea) in experience. While the Soviet fighters were locked in action over Sinuichu, 9 V-29s went to the area of the bridges and dropped 1000-pound bombs on them. Anti-aircraft artillery, which was defending the city and bridges, was not able to hit the B-29, since they operated at an altitude of 6-7 thousand meters inaccessible to it and, having dense battle formations, were over the target for a few minutes. But the efforts of the anti-aircraft gunners were not in vain: their fire created a nervous atmosphere for the American pilots. As a result, the accuracy of the bombing was extremely low: the bridges were not damaged - only part of the access roads were destroyed39. On this day, both sides suffered their first losses: the 64th Air Corps lost 1 MiG-15, but Soviet fighters shot down 1 V-29, a strategic reconnaissance aircraft. Thus began the Soviet-American air battles in the Korean sky.

During the next week, intense air battles took place over the Yalu River. Taking advantage of the fact that the pilots of the US-South Korean Air Force were forbidden to cross the border along the Yalu River, the MiGs gained altitude over the territory of Manchuria and, diving across the river at maximum speed, tied

short air battles, after which they quickly retreated back to Manchu territory in order to repeat the entire maneuver from the beginning.

Air battles in the Yalu region revealed many problems for both belligerents. In an order dated November 6, 1950, the commander of the US Air Force in the Far East, General Streytmeyer, demanded the destruction of 6 strategic bridges across the Yalu River and 10 North Korean border cities. The most important objects of air bombardment were these bridges in the Sinuiju area, a road bridge in Hongseongjin, a railway bridge near Namsanni, and 2 bridges near Manpojin - a road and a railway. These objects were the main targets for strategic aviation. Tactical bombers and naval aviation were supposed to destroy bridges of secondary importance on the territory of the DPRK. However, the fulfillment of these tasks was difficult. The anti-aircraft fire of the air defense systems defending the bridges forced the strategic bombers to bomb from heights of more than 6-7 thousand meters, which significantly reduced the accuracy of the hit, and the actions of the Soviet MiGs forced the bombers to stay in the target area for a minimum amount of time, which made it difficult to aim. Naval aviation attempted to strike the bridges from a dive, but this only resulted in a few hits on the road bridge near Sinuiju, but did not incapacitate. Other bridges were also slightly damaged. In addition, since mid-November, the Yalu River has been frozen over for a long distance, along which it was possible to transport even heavy equipment to North Korea using temporary crossings.

From mid-November 1950, air bombing attacks on strategic bridges were carried out by ever larger groups of B-29s: on November 14 - 9 aircraft, on the 15th - 21, on the 24th and 26th - strategic

bombers from the 3 bomber groups (19th, 98th and 307th). Managed to damage two

a span of a bridge at Hongsongjin and one span of a bridge at Manpojin, moreover, 2 ÿ 29 were hit by Soviet fighters40 .

Thus, in November, the tasks of the US Air Force to destroy bridges AND suspend the flow of reserves from China to North Korea were not completed. For the first time since the start of the war, US Air Force air supremacy was called into question. The MIG-15s in all respects were significantly superior to the opposing American aircraft, and only thanks to the higher skill of the American pilots did they manage to avoid heavy losses. In addition, at the beginning of 1951, Soviet radar specialists set up a system for guiding fighters from the ground, which allowed MiGs to further increase the effectiveness of their combat use.

However, for Soviet air units and ground-based air defense systems, despite the successful start of combat missions, the situation was very difficult and was largely unfavorable. Soviet air regiments were introduced into battle sequentially. The number of fighters increased as the air situation became more difficult. In the first months of air battles, no more than 50-60 combat-ready crews operated from the Andong airfield . The enemy had not only superiority in the means of air attack (strategic and tactical aviation, carrier-based bombers and fighter-interceptors), but also in the technical equipment of their Air Force: jamming aircraft, all-weather F-94 night fighters with airborne radars. The Americans used a widely branched and well-equipped airfield network in South Korea, Japan and the Pacific Islands, and had great opportunities to create comfortable, sustaining strength and vigor living conditions for Air Force personnel participating in hostilities. The American command had a significant reserve of pilots.

Unlike the Americans, Soviet pilots did not have the appropriate living conditions. Officers and soldiers

lived in military camps, in old one-, three-story former Japanese barracks. The buildings were very rundown and in need of repair. Some of them did not have running water, sewerage or even lighting. Food was prepared and brought to the barracks by the Chinese. Soviet military personnel wore the uniform of the Chinese People's Army without insignia. Duty at airfields, sorties on combat missions 2-3 times a day, had a severe effect on the physical condition of the pilots. The position of the defending side obliged the Soviet pilots to be on duty in the cockpits of fighters for a long time, waiting for a flight. In a hot and humid climate, this turned into real torture. After takeoff, while climbing and operating at high speeds and altitudes, the MIG-15 crews experienced huge overloads. They did not have, like the Americans, a high-altitude compensating suit, but used

oxygen masks KM-1642 .

mountainous terrain terrain sharp limited the ability of radar stations to detect and track aircraft. Therefore, the command of the Soviet fighter aviation had to make decisions in a difficult situation in the shortest possible time. In this regard, it was not always possible to intercept the target on time, in the optimal battle formation and at the most advantageous height. In addition, Soviet aviation in the front line experienced an acute shortage of airfields.

Considerable difficulties also arose due to the need to maintain secrecy, since the Soviet command took all measures to hide the participation of the Soviet Air Force in the Korean War and not give the United States evidence that Soviet-made MIG-15 fighters (which was not a secret) were piloted by Soviet pilots. To this end, the MIG-15 aircraft had identification marks of the Chinese Air Force, it was forbidden to operate over the Yellow Sea and pursue enemy aircraft south of the Pyongyang-Wonsan line (that is, up to 39 ° north latitude, although the front in 1951 stabilized along the 38th parallel). The last circumstance the Americans skillfully

used. Air battles were conducted by them mainly near the sea coast. Once in an unfavorable situation for themselves, they quickly retreated towards the sea and from there, choosing a convenient moment and taking the required height, they could again engage in battle or retreat without interference. The Andong airfield, despite a special UN decision prohibiting crossing the PRC border, was constantly under the influence of enemy fighters attacking Soviet aircraft during takeoff and landing.

Despite all the difficulties that complicated the combat use of the fighters of the 64th Air Corps, the introduction of Soviet jet fighters into combat operations immediately changed the general air situation in Korea. The very first air battles against the B-29 showed the great vulnerability of this bomber. The effectiveness of the action of 23 mm and 37-
millimeter shells turned out to be very large. A relatively small number of hits led to the destruction of the aircraft. Could not ensure the safety of the B-29 and numerous detachments of American fighters, allocated to the direct protection of battle formations, as well as curtains or barriers for the early interception of MIG-15s on distant approaches. The pilots of the 64th Air Corps had many encounters with the B-29, and each of them ended in heavy losses for the enemy, which were painfully acutely perceived by him, since the four-engine bomber was expensive. In addition, 10-12 crew members often died along with the aircraft.

Of course, the guns of the Soviet fighters did not yet guarantee them success in battle. Strategic bombers had their own strong defensive armament, consisting of several twin 12.7-mm heavy machine gun mounts, constantly accompanied by fighters. Victory was achieved by the right choice of tactics appropriate to the situation, good organization and precise control of air combat, and the high individual skill of Soviet pilots.

The battle formation of the American attacking aviation consisted of B-29 piston bombers, which had low speed and followed in close combat formations (420-450 km / h), and their fighter cover -
jet fighters F-80 and F-84. The latter were also forced to fly at the minimum speed for jet aircraft (650-700 km/h) in order not to break away from the "super-fortresses". This did not allow cover fighters to gain the necessary speed for air combat with the sudden appearance of MiGs, and even with such an aircraft superior to them in terms of flight performance as the MIG-15.

Having established this important fact, the command of the 64th Air Corps developed an effective tactic for combating the air enemy. "Migs" were ordered, using the advantage in flight altitudes and speed, to operate with a large number of pairs of fighters, giving them independence. The main task was not getting involved in a battle with fighters

cover, "cut through" the battle formation of the F-80 and F-84 at high speed and attack directly the B-29. This tactic has been successful. As the Americans admitted, the jet fighters of the cover, following the close formation over the battle formation of the bombers, did not ensure their safety. By the end of November, the combat effectiveness of bomber aircraft had declined. The command of the US Air Force in the Far East was faced with the problem of reliable protection of the B-29 and B-26 bombers during attacks on strategic targets in the Yalu River area.

In December 1950, the first attempt was made to oppose the MIG-15 aircraft of an equal class: from the United States to Korea, through Japan, the 4th wing of interceptor fighters, equipped with F-86A fighters ("saber"), was hastily transferred. In the very first flight to freely search for the enemy on December 17, in the area of the Yalu River, the Sabram managed to shoot down a MiG-15. This "moment" was one of four fighters that attacked the F-86A, mistaking them for the F-80.

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The command of the 64th Corps realized that the enemy had an interceptor fighter that was not inferior to the MIG-15 in terms of its combat qualities. It was necessary to study the performance characteristics of the new enemy fighter and the tactics that the air enemy would now use in order to oppose him with his tactical methods of conducting air battles.

3. "Alley of moments"

Already in December 1950, it became clear that the Saber was a serious enemy. But the first air battles also revealed vulnerabilities in the use of the new American fighter-interceptor. F-86s, taking off from the airfields of South Korea, had to cover a considerable distance before arriving in the area of a likely meeting with MiGs. In order to extend the patrol time in the so-called "alley of flashes" (the area bounded by the Yalu River, the Yellow Sea and the Hichhon-Anchzhu line), the "sabers" were forced to operate at low speeds. This made it difficult to timely gain altitude and speed for an attack when "Migs" appeared, which put them in clearly unfavorable conditions. Soviet pilots quickly learned to use their tactical advantage: they attacked the "sabers" from above at speeds close to sonic, and managed to get away before the pilots of the "sabers" managed to develop the speed necessary for a retaliatory strike.

In search of a tactical solution to this problem, American pilots, in order to increase the speed of combat patrols, decided to reduce its duration. Instead of 1 link per mission with an interval of 5 minutes, 4 links of "sabres" flew out in succession. Air battles were fought with varying success. Both sides mastered the tactics of confrontation. But in the battle on December 30, in which 36 MiGs fought against 16 Sabers, Soviet pilots destroyed and damaged 7 enemy aircraft without losing a single one of their own44. It was an excellent result.

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In January-February 1951, encounters between Migs and Sabers were rare, since the F-86s were in Japan for a preventive examination after the first air battles. This was a forced step, caused by shortcomings in the material support of the new fighters. The absence of modern fighter-interceptors affected the air situation. Soviet aviation successfully operated against bombers and jet fighters of the F-80, F-84 type, and naval aircraft.

However, the experience of the combat operations of pilots at the end of the 50th showed that in order to achieve sustainable success in the fight of the 64th Corps against American fighters and bombers, it is necessary to know more about the enemy, create a coherent system for obtaining intelligence data, improve the combat skills of pilots and the skills of ground services, improve the tactics of group air combat. All these tasks required the fastest solution.

Soviet fighters solved combat missions in two ways: air patrols and duty at the airfield. But not having reliable information about the take-off of enemy aircraft, the pilots were forced to sit in aircraft for hours waiting for a signal to take off or patrol in areas of a possible meeting with the enemy, getting tired in flight, consuming a lot of fuel with limited motor resources. This was further complicated by the fact that any preliminary information about the proposed actions of the enemy command and division 64-
did not have an air corps. It was necessary to urgently take measures to improve intelligence of all kinds.

For reconnaissance and detection of an air enemy, the 64th Corps had a radar network for detecting and targeting targets, which included several types of radars and radio stations; artillery radar stations of all-round visibility and gun guidance, as well as radio receivers with quartz devices, which made it possible to listen to the radio communications of enemy crews.

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Within a short time, it was possible to establish that the 4th wing of the F-86 fighters, deployed in December 1950 from the United States, is stationed at the Kimpo airbase (South Korea). This made it possible to determine the range, since Kimpo was about 400 kilometers away from Andun. Now it is possible to calculate the time spent by a fighter in the air. From interrogations of captured American pilots, it was possible to find out that the range of the F-86A
was 930 kilometers. It became possible to calculate the time spent by this fighter in the air. Calculations have shown that the "saber" at the optimum speed to the patrol zone can be in it for no more than 15-20 minutes. During this time, he could carry out one or three attacks, and for more he did not have enough fuel, taking into account the flight to his base. Air and electronic reconnaissance confirmed that the Americans, having ceased to save fuel, appeared in the patrol zone at high speeds and altitudes (about 1000 km / h at an altitude of 9-11 thousand meters). But this reduced the time they spent in the patrol zone to 20 minutes. The command of the 64th Air Corps immediately took advantage of this. Soviet pilots began to reach targets in the last 10 minutes of the F-96's stay in the "alley of moments", when they could no longer afford to get involved in battle for fear of using up a lot of fuel and not reaching their airfield, and went towards the Yellow Sea .

For electronic reconnaissance of the enemy, a special Pyramid system was transferred to the corps. In principle, it was intended to set up active interference with enemy radio systems, but in the special divisions of the corps there was only a receiving part of it, which allowed only reconnaissance. There were no transmitters to create interference.

In conditions of intense radio interference, it was very difficult for radars of all types to control the combat operations of fighters. In these cases, they used the fragmentary information that they still managed to remove from the radar screens; Auxiliary Command Posts (ATP) reports

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about visually observed enemy aircraft; received work signals

airborne panoramic sights, which were often used by bomber crews for navigation; data contained in the tapped radio communications of the pilots.

All this information was clearly not enough to reliably repel bomber raids and successfully fight enemy fighters. It was necessary to have data on the base airfields of enemy aircraft, the number of aircraft, their technical characteristics, navigation equipment, radar sights, bombing equipment and the patrol system, etc.

To establish radio intelligence and study captured documents in March 1951, a group of officers who spoke English was sent to the corps by the General Staff, among whom was the author of these lines. All the officers of our group knew the language quite well and had some knowledge in the field of intelligence.

The first task of the reconnaissance group after arriving in Andong was to obtain intelligence on the F-86 fighters. It was necessary to identify home airfields, call signs of units, the composition and operation of radio networks for various purposes associated with the use of F-86 fighters. It was also necessary, in cooperation with other types of intelligence, to obtain information on certain issues related to the activities of the American strategic and tactical aviation that operated in Korea.

In order to increase the effectiveness of the fight against "sabers", it was necessary to set the time for the take-off of enemy aircraft from their airfields. It was possible to find out the call signs of the air units operating on the objects of North-West Korea. For example, the 4th air wing had the call sign "Titmouse" (tomtit), the call sign F 84 of the 51st wing was "Robin" (robbins). This helped to detect by means of radio reconnaissance the moment of departure of American aircraft on a combat mission, and sometimes to determine the number of aircraft.

As the combat aviation groupings of the belligerents grew, the scope and intensity of the air battles in the spring of 1951 increased the number of questions to which intelligence provided answers. For example, the F-86 has a radar sight with a rangefinder that allows you to determine the distance to the target, which was determined visually on the MIG-15. Then, the American pilots were dressed in special anti-g suits that helped them withstand heavy overloads. In an environment where, in the course of air combat, pilots had to drastically change altitudes - from 10-12 thousand to 200-100 meters, such a suit reduced the effect of overload on the body, which created better conditions for combat. It was also important to know the organization of the rescue of the pilot after his ejection, the pilot's equipment in the event of a forced landing or landing after an ejection, etc. Such data could not be established by the available technical means. The downed planes, as a rule, exploded when they hit the ground, and their equipment could not be studied, the downed ones went towards the sea, where the rescue service, perfectly organized by the Americans, picked up the pilots.

The necessary information could only be obtained through captured American pilots or captured intact equipment and documentation from aircraft. But prisoners of war were kept in camps on the territory of the DPRK, and Soviet aviators did not have access to them. In early May 1951, in agreement with the KPA command, two Soviet officers with knowledge of English were sent to Kim Il Sung's headquarters, one of them was the author of these lines. Our task was to obtain information of interest to the command of the 64th Air Corps about US aircraft operating in

Korean War, primarily about the "sabers".
Getting to Pyongyang, near which the KPA command post was located, was not easy. During the day, it was impossible to move along Korean roads: they were controlled from the air by F-80 fighter-bombers

and F-84. All movement took place at night. The mountain roads were clogged with Chinese troops moving in vehicles and on foot towards the front. Blackout was strictly observed, as B-26 night bombers were constantly buzzing over the road, and any flash of headlights caused a series of bomb explosions dropped from bombers. Nevertheless, we got there, in general, safely, except that we were bombed twice and in one of them my colleague was slightly wounded.

The military camp, where the command post and headquarters of the KPA was located, was located in a valley bordered by low, forested mountains. Fanzas (chibis) were scattered along the valley, bomb shelters were equipped on the slopes of the mountains. We lived in one of the many chibis.

The work was organized like this. Under the guidance of Colonel A. V. Petrachev, the adviser on aviation at the KPA Headquarters, we compiled questions in English and through North Korean officers (KPA intelligence chief Li Soksim supervised this work on behalf of the KPA) handed over to the camp administrations for written answers. The same question was asked to several captured pilots at the same time, so that the answers received could be compared, the most accurate ones chosen, and a qualified certificate compiled. Sometimes written responses were accompanied by drawings or diagrams. Sometimes it was necessary to ask the same questions a second time in order to more accurately establish the information that was of interest to Soviet aviators. Direct contacts with American pilots were rare - only in emergency cases, to urgently clarify any details important to us or controversial interpretations of the written answers of prisoners of war.

Through captured American pilots, it was possible to find out a lot of various kinds of information important for the combat operations of the 64th Air Corps - in particular, it was found that the F-86 was equipped with a K 18 ("Mark-18") gyroscopic automatic sight with a radar rangefinder. Its resolution was

limited and did not allow for sufficiently accurate aimed fire at a target at a speed of more than 650 km / h. The armament of the aircraft consisted of 6 machine guns of 12.7 mm caliber, the rate of fire of which exceeded the rate of fire of 23
mm and 37 mm guns mounted on the MIG-15. A description of the pilots' anti-g suit was also compiled, and later they managed to get samples of the Mark-18 sight and a high-altitude compensating suit. The performance characteristics of the F-86A and F-86E were clarified.

The information received about emergency equipment contained a lot of interesting information. American pilots who ejected from downed aircraft had rescue equipment
to be rescued, because the rescue service, especially in the Yellow Sea, was not only well organized, but also well equipped. The pilots had elaborate emergency equipment. Each had a portable automatic radio beacon that served as a homing radio for an aircraft or rescue helicopter. The set of equipment included a special mirror, with the help of which the person in distress signaled his whereabouts.

In order to successfully combat the massive American air raids, the command of the 64th Air Corps sought to organize combat work in such a way as to

in order to intercept enemy bombers by MIG-15 fighters as far as possible from the object of attack. The first data on the approach of an air enemy were given, as a rule, by radar stations (radar stations) from the Hakusen areas near Anzhu and Futsiori northwest of Pyongyang, where there were auxiliary command posts of the 64th Corps, and also by the Chinese Lida radar. The detection range of these radars made it possible to successfully operate against American aircraft during their raids on the bridges across the Yalu in the Andong region, but did not provide the information necessary to cover the airfields near Pyongyang and communications leading to it.
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Since the main method of combat use of MiGs was sorties to intercept aircraft on duty at the airfield, in order to attack the enemy with a squadron at a turn of about 40 kilometers from Andong at an altitude of 8-9 thousand meters, it was necessary to detect a target at a distance of not less than 200 kilometers (for departures of two or more squadrons - for 220-240 kilometers). But in the conditions of mountainous terrain and a lack of locators, vast areas and directions were not visible by the radio engineering parts of the corps, and strong enemy radio interference reduced the already limited capabilities in the timely detection of aircraft, determining the directions of their flight and probable objects that would be hit.

And in order to carry out combat missions in the Pyongyang region, it was necessary to keep our fighters in the "air watch" position. It was very difficult to provide a constant patrol regime. In addition, when covering the Supkhunskaya hydroelectric power station on the Yalu River, the maximum possibilities for detecting the enemy did not exceed 150-180 kilometers, which even more complicated the tasks of timely interception of American aircraft45 .
All this in the first months of 1951 affected the combat results. The reconnaissance jets RB-45, operating at speeds of 800-900 km/h at altitudes of 9-10 thousand meters, managed to complete their task before the MiGs could take off and gain the required altitude for the attack. And the task of the "MiGs" was to prevent the conduct of aerial reconnaissance by the enemy, and even more so the actions of strike groups of his strategic and tactical aviation. In such an environment, experience, as well as good operational and tactical training of commanders, played a huge role in making the right decisions. Analysis of even very limited data on the air situation, assessment of the nature and objects of aerial reconnaissance, which was carried out by the enemy on the eve of the next day of hostilities, own reconnaissance of the work of the enemy's onboard panoramic sights, radio communications 213

ry, other indirect data allowed an experienced commander to make a fairly correct (although not always the only correct) decision in a short time.

During the day, the commander of the air corps usually led the combat operations from the command post (CP), and at night, one of his deputies. The guidance of fighters on single aircraft and groups of the enemy was carried out by the course method in combination with the information method: at first, guidance was carried out by the course method, and when approaching American aircraft, by the information method. The second method suited the commanders of fighter groups that had gained altitude more, since in the air the commander could better determine the position of his group, decide on a maneuver, take an advantageous position for an attack, etc. At the same time, monitoring the position of groups of his aircraft from the command post even with intense interference created by the enemy, it was solved quite successfully, because after turning on

On board the MIG-15 systems "CH" (friend or foe) and "Trouble" (distress), these signals were clearly visible against the background of interference on the screens of ground-based radio interrogators. In addition, pilots' reports on the air situation and its changes were widely used, since the enemy of VHF communications interference did not create.

In general, in the field of radio electronics, Soviet air connections lagged far behind the American ones. The command of the 64th Air Corps did not have the means to actively combat enemy electronic devices and maintain the stability of the control system of their fighters in the face of interference.

The Americans, on the other hand, had a widely ramified network of radar stations located on the territory of the Korean Peninsula they controlled, coastal islands and naval ships; radio-technical navigation and bombing system "Shoran"*; big

* Shoran - short-range avia navigations - a network of ground radio stations in a limited area, according to the emitted signals of which determine the coordinates of aircraft in the air.

a set of various electronic equipment installed on aircraft. Their airfields were equipped with radio lighting systems, which made it possible to fly in adverse weather conditions and at night. On board the aircraft used as jammers, transmitters were installed that created barrage and directional interference, as well as passive jamming machines for dropping chaff. The bombers had on-board panoramic radar sights, and the fighters had radio rangefinders that automatically entered data into rifle sights. The Americans also had one squadron of all-weather F 94s with radar guns to fight Soviet night fighters. All aircraft were equipped with 8-channel VHF radios, and the bombers were equipped with long-range radios operating in other frequency bands.

The lack of appropriate electronic means did not allow the Soviet command to conduct electronic warfare. Even with information from their radio and electronic intelligence, the Soviet Air Force in Korea could not fully use it to increase the effectiveness of military operations. Although the location of the ground stations of the Shoran system was known, and after three or four notches of the detected targets, Soviet specialists accurately calculated the orbit of the bombers, the lack of airborne radar sights did not allow pilots, even brought to the target, to find it in the clouds or at night, except by chance. When it became known about the radio rangefinders in the sights of fighters, there was nothing to interfere with them. Therefore, the Periscope radio stations were installed on the MIG-15bis - to monitor the rear hemisphere and the Sirena tail protection equipment, which gave a sound signal to the pilot that the aircraft was irradiated with a radio range finder of the sight.

To protect against American radio intelligence, the most important commands were transmitted in coded sig

cash. The codes changed frequently. To simplify the radio exchange, plates of coded signals and their meanings were pasted on the dashboards of the MIG-15.

In the spring of 1951, as a rule, two air regiments of the 324th Fighter Aviation Division were on combat duty at the Andong airfield. It was commanded by the famous Soviet pilot three times Hero of the Soviet Union I. N. Kozhedub. Our reconnaissance group was under his command. Regiments were transferred on duty by

days. One squadron was in readiness No. 1 (takeoff in 2-4 minutes), the other two were in readiness No. 2 (6-8 minutes). At the end of May, another regiment of the 303rd Air Division went on duty. The duty scheme changed somewhat: the flight crew of one regiment was completely at the aircraft, having one squadron in readiness No. 1, two in readiness No. 2; the second regiment had one squadron at readiness No. 2, the rest at readiness No. 3; the entire third regiment was in readiness No. 3 (12-14 minutes).

To intercept single aircraft or small groups of an air enemy, a detachment of forces of the squadron, which was at readiness No. 1, flew out at the discretion of the regiment (division) commander. Against large groups of American bombers and fighters, the regiment on duty took off all the aircraft on duty at the same time in order to save time in collecting and building battle formation. The takeoff was made in pairs. This made it possible to reduce the collection time from 12–15 minutes to 5–4 minutes46 .

The tactics of subsequent actions looked something like this: the MiGs formed four groups: cover, two strikes, and a reserve. The covering group, consisting of 1-2 squadrons, was supposed to occupy an echelon superior to the enemy in height, go to the area of \u200b\u200bthe likely route of American bombers, pin down the actions of enemy fighters with separate attacks from an advantageous position and impose a battle on them. The task of the first strike group (2-3 squadrons) was to destroy the bombers that made up the lead group. The second strike group (2-3 squadrons) was supposed to increase

strike of the first group, to destroy new groups of bombers approaching the battle area. The reserve (1 squadron) had the task of increasing the composition of the forces of the strike groups and the cover group, and covering the landings of their fighters47 . Such tactics made it possible to develop possible options for the upcoming battle even on the ground, to reduce radio communications to a minimum and facilitate the control of units in the air.

But the enemy also improved the tactics of both bombers and fighters. Already at the beginning of 1951, the US Air Force Command in the Far East developed a plan for the bombing of strategic targets behind enemy lines. North Korea was divided into 11 zones with 172 targets: 45 rail and 12 road bridges, 13 tunnels, 39 rail junctions, and 63 supply centers. The most important zones were considered "A" - the Andong region, Sinuizhzhu, "B" - the approaches to Manpojin and "C" - the Pyongyang region. Both B-29 and B-26, F-80, F-84 operated on objects in these zones. Naval aviation aircraft of the 7th Fleet were responsible for strikes against enemy communications in zones "F", "G", "H" from the Sea of Japan, from the borders of the USSR to Wonsan. Strategic aviation was responsible for putting out of action 60 bridges, 39 railway junctions and 35 supply and communications centers. On average, 12—

24 V-29.

But if, before the MIG-15s entered combat operations, the bombers acted with impunity, they could deliver bombing strikes from 300 meters and make several visits to the target (it was believed that 13.3 bombing strikes were required to completely destroy the bridge), then with the advent of "MiGs" (the Americans coded them as "bassoon") and the Soviet anti-aircraft artillery bomber tactics changed.

The bombardment was carried out from an altitude of 7000 meters, and it was rarely possible to make more than one approach to the target49. This required an increase in the power of bombs dropped on targets. 2000-4000-pound bombs began to be used

instead of 1000 pounds (1950). The battle lines have also changed. Instead of large groups, bombers began to operate in fours across bridges, using conventional 2000-pound bombs or 1000-pound, but radio-controlled - "razon" (razon). The latter were used back in the years of the 2nd World War, and in 1950, after testing, the accuracy of their hit was increased to 67 percent, and later even up to 96 percent. 15 bridges were destroyed in this way, but 4 such bombs were required to disable one bridge. In order to save the expense of such expensive ammunition, from the end of 1950, an improved tarzon bomb began to be used , which had the same radio control system, but with a charge increased to 12,000 pounds. However, out of 10 Tarzon bombs, only one accurately hit the target. In early 1951, the effectiveness of these bombs increased: on January 13, with its help, two spans of the bridge in Kang were destroyed with its help, in the following months the number of successful hits increased. The Tarzon bomb was usually carried on board by one B-29 from the first or second flight (4 aircraft) participating in the air

on the fly.

The use of radio-controlled bombs of increased power and accuracy of destruction complicated the task of Soviet fighters to intercept targets. It was necessary either to hit the carrier aircraft on the outskirts of the target (which was practically unlikely, since the only sign of its movement was the reinforced cover of the entire group by fighters), or to upset the combat formations of the attacking enemy aircraft and prevent the B-29 from conducting targeted bombing.

The Americans, in their turn, also took measures to counter the Soviet interceptors with reliable cover for their bombers and not to give the MiGs the opportunity to interfere with the combat missions of American aviation. The fighter cover forces were increased, and the F-86 fighters operating from the Kimpo airfield near Seoul, when the bombers approached the bombing object

the flow of links

(4 aircraft each) set up a barrier in the "alley of moments", involving them in air battles in order to allow their bombers to successfully complete tasks.

Since March 1, 1951, US air raids have become systematic. But already the first clashes in the air showed that Soviet aviation was not. I used the winter months in vain and learned a lot. So, on March 1, taking advantage of the fact that strategic bombers - 18 V-29s were left without fighter cover (due to weather conditions, the meeting with 22 F 80 did not take place), the MiGs inflicted significant damage on 13 V-29s, and 3 bombers made an emergency landing. The Americans took immediate action. Since March 6, 2 F-86 squadrons (334th and 336th) have been stationed at the Suwon airfield north of Seoul. Operating from this airfield, "sabers" in fours (links) went out into the "alley of moments" and, having chosen good landmarks on the ground, at different points expected the appearance of Soviet fighters. As a rule, with good visibility, the take-off of the MiGs was determined by the clouds of dust on the runway at the Andong airfield. On a coded signal, the F-86 units were drawn to the assembly point in the area of the bridges over the Yala and entered into battle with Soviet fighters in order to link them in battle for 20-25 minutes, to allow the bombers to drop bombs in favorable conditions. There were also failures in this tactic. Often "Migs" appeared unexpectedly, and the "Sabers" did not have time to drop the hanging tanks. In this case, they evaded the battle and went towards the sea, knowing that Soviet fighters were forbidden to operate over the Yellow Sea.

On some days American aircraft operated with impunity. For example,

On March 30, 36 B-29s, under the cover of 32 F-86s, bombed bridges in Cheongsongjin, Manpojin and Namsanni, without meeting. resistance from Soviet aviation. On April 3 and 4, F-86s shot down 4 MiG-15s without losing a single fighter .

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On April 7, 56 strategic bombers under cover of 60 F-84 and F-86 fighters bombed the railway bridge near Andong. The combat order of the bombers consisted of three groups: the first two - 9 aircraft each, the third - 40 V-29s. The first two groups were supposed to divert the MiGs to themselves, and the third to drop bombs on the bridge. 8 fighters were ahead of the combat order of the bombers, breaking away from it by 12-15 kilometers. And yet, 30 "migs" managed to provide significant resistance to the enemy, violating his battle order. The bombing proved to be inaccurate, the bridge remained intact, and American losses amounted to 1 B-2951 .

Characteristic for the spring of the 51st was the air battle on April 12th. The same bridges near Andong were the object of the strike. The raid involved 48 B-29s (according to American data - 39 B-29s), 48 F-80 and F-84 fighters, as well as 32 F-8652 .
One of the strategic bombers had a Tarzon bomb on board, others carried 8 bombs weighing 900 kilograms each. Bombing was supposed to be carried out in groups of 8, 16 and 24 bombers at intervals of 2 to 10 minutes. The battle order consisted of a column of links in the "rhombus" formation, with each subsequent link exceeding the one in front by 200 meters53. The first group was supposed to bomb from a height of 5700-6000 meters, the second - 6200-
6500, the third - 6700-7000 meters. Approaches to the target were planned at an angle of 35 degrees, and the carrier aircraft of the Tarzon bomb - at an angle of 0 degrees.

Aircraft of the first groups were instructed not to change course until the Tarzon bomb was dropped and the target was hit, then to leave the object with a turn to the right. The bomb load of each link was to be dropped in 17-20 seconds.
At 45 kilometers from Andong, American aircraft were met by 40 Soviet fighters. The first group was attacked by "migs" at an altitude of 6500 meters, the second (35 kilometers from Andong) - at an altitude of 6500-7000 meters. The enemy was scattered, his battle order

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violated. As a result, the Tarzon bomb exploded 150 meters from the railway bridge without harming it; several bombs fell near the bridge. A total of 250 bombs were dropped with a total weight of 260 tons. The enemy lost 10 bombers (according to American data - 2)54. The losses of American fighters amounted to 2 aircraft (according to American data, several F-86s were damaged, since in the turmoil of air combat, F-80s and F-84s fired at any high-speed air target, be it MIG-15 or F-86)55 .

An important task of the 64th Air Corps in the spring of 1951 was to prevent the bombing of new airfields under construction in North Korea since February of this year. It was supposed to base Korean-Chinese jet aircraft on them in order to expand the range of the MiGs. Already in April, American air reconnaissance unraveled the plan of the Soviet command. The US Air Force began systematic bombing of airfields under construction. However, the damage caused was quickly repaired by Chinese and Korean airfield builders. The commander of the temporary bomber command, Brigadier General J. Briggs, decided to strike at new airfields only immediately before they were put into operation. The tactic was to carry out systematic reconnaissance of objects under construction, and, when they were ready, to launch bombing attacks with a small detachment of strategic aviation forces. Further

bombing and assault strikes to impede repair work56 .
On April 17, bombardments of airfields being prepared for the reception of Soviet, North Korean and Chinese aircraft began. But the success of this plan of the enemy depended on the outcome of the fight against Soviet fighters. I must say that by this time the pilots of the MiGs had gained experience and improved their skills. Combat duty in Andong continued to be carried out by the 324th Fighter Air Division, led by Colonel Kozhedub. Soviet pilots used a battle formation consisting of 16 MiG-15s, in which

rum, acting in fours and pairs, brilliantly mastered the art of mutual cover from the attacks of the "sabers". In air battles on April 16 and 18, having disrupted the Americans from completing the task, the MiGs did not suffer losses.

In order to more successfully fight Soviet fighters, the American command deployed another squadron of F-86s to the Suwon airfield and applied new tactics. "Sabers" began to act in sixes. When the four "Migs" were separated for an attack, 4 F-86s went to intercept a pair that was gaining altitude, and 2 F-86s attacked a pair that was approaching a target. The idea of the maneuver was to split the MiGs' battle formation and destroy them one by one. At first, this tactic worked. Already on April 22, 36 MIG 15s, which were going to intercept 12 F-86s that were finishing patrols in their zone, were met by fresh forces consisting of 12 Sabers, who engaged in battle with Soviet aircraft and shot down, according to American data, 4 "Mig "57

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(This is doubtful, since the Americans often considered downed MIG-15s, which received many holes, but the exceptional survivability of the MiGs - up to 50-100 holes! - allowed them to quickly return to service.)

The remoteness of Andong, where the MIG-15s were based, from the airfields effectively Not allowed being built in the DPRK by Soviet fighters counteract the systematic bombing of these objects. This allowed American strategic and tactical aviation, in essence, to disrupt the construction of airfields and bring them into readiness to receive
aircraft. Only for the period from 17 to 23 April, 9 airfields were bombed, which were completely disabled.
On May 9, a massive raid was carried out on the Sinuijzhu airfield, where North Korean aircraft were based: 38 Yak-9, Il-10 and La-5, as well as large warehouses of fuel and military materials. The airfield and warehouses were badly damaged, a significant number of aircraft were destroyed on the ground58. 18 MIG-15s taking off from Andong were unable to effectively counteract the

6 air wings of tactical naval aviation, numbering up to 318 aircraft.59

The spring of 1951 showed that Soviet fighters acted quite effectively, performing tasks to cover the bridges across the Yalu, but due to the limited flight range they could not counteract the American aircraft, which carried out bombing and assault strikes on airfields and communications in the central and eastern regions of North Korea. But in the "alley of moments" Soviet fighters became an increasingly formidable adversary for American aviation.

Thus, in an effort to prevent enemy air raids on North Korean airfields in areas inaccessible to moments, Soviet fighters began to expand their combat zone. Using hanging tanks, which increased its radius to 190 kilometers, they began to enter the areas adjacent to Pyongyang and Chinnampo. Using the advantages of "instants" in

actions at high altitudes, Soviet pilots occupied an echelon with an excess of "sabers" or escort fighters over the battle formation, stood in a circle of 16-20 aircraft and, setting from the direction of the sun, attacked the enemy in pairs, after which they again gained altitude. The Americans called this technique "yo-yo" (devil jumping on an elastic band). US Air Force intelligence noted that "highly qualified pilots appeared in the skies of Korea", and it was suggested that the MiG crews were manned by Soviet pilots60 .

The tactical innovations used by the pilots of the 64th Corps forced the US Air Force command to find new ways of action for their aircraft.

On July 10, 1951, in Kaesong (DPRK), located at 38 ° north latitude, negotiations began on a truce between North and South Korea. By this time the front had stabilized along the 38th parallel. There was a lull in the air war. Meanwhile, near Andong, on Chinese territory, another airfield, Miaogou, was put into operation. This allowed the 64th Corps to increase

the number of fighters for combat duty at the airfield or in the air. (Later, two more Chinese airfields, Dapu and Dagushan, were used.) The number of fighters capable of simultaneously participating in hostilities increased from 2 to 4 regiments61. In addition, parts of the 64th Air Corps were re-equipped with the latest modification of the MIG-15 - the MIG-15bis. The Americans believed that in the summer of 51, up to 445 aircraft of the MIR2 type were stationed in the Andong area. .
However, this assessment was far from reality. The number of MiGs at that time did not exceed 190 aircraft, and the number of combat-ready aircraft was even less63. And with this composition, they were supposed to confront the American Air Force in Korea, which numbered up to 1,500 aircraft of various types of strategic, tactical and naval aviation, including Sabers of equal combat qualities (89 aircraft).

In connection with the new equipment that entered service with the 64th IAC, the command of the US Air Force in the summer of 51 forbade the use of the B-29 in the "MIG alley". Air raids on targets in Northwest Korea were carried out mainly by F-80 and F-84 tactical fighters under the cover of F-86. But this did not save the Americans from trouble. So, for example, on July 29 and in August (on the 9th, 18th, 19th and 24th), MiGs, without engaging in battle with the Sabers patrolling in the area where the fighter-bombers operated, attacked the F-80 and F -84, and, inflicting damage on them (albeit insignificant), disrupted the task of attacking and bombing airfields and communication centers.
On August 23, negotiations in Kaesong broke off. From September 1, the aviation of the 64th Corps launched active operations against the US Air Force, which from August 18 carried out massive raids on North Korea's communication centers. Soviet pilots changed tactics again. They formed a circle from which suddenly several aircraft (4-16) in a deployed formation attacked one of the Sabers, diverting other F-86s to the rescue of a comrade, and at that time other MiGs, acting in a column of links, attacked

or aircraft designed to strike objects64. This tactic gave good results: on September 19, in an air battle, the MiGs destroyed 3 Sabers and 3 fighter-bombers. September, they did not give the Americans the opportunity to deliver effective strikes on selected targets.General Wayland, who became the commander of the US Air Force in the Far East on June 10, demanded that the high command strengthen

grouping F-86 in Korea, but was refused. Then Wayland was forced to stop the bombing of objects in the zone of action of the MiGs, concentrating the forces of fighter-bombers on strikes against targets between the Cheongchon River and Pyongyang65. It was the success of Soviet aviation.

But new surprises awaited the Americans. At the end of September, aerial reconnaissance noted the construction of three airfields in the Samchham, Taechon, Namsi triangle. Located not far from each other, these construction sites were well covered by anti-aircraft artillery and were within reach of the MIG-15 from the Andong and Miaogou airfields. The completion of the construction of airfields did not bode well for the Americans. When operating from such an airfield hub, Soviet fighter aircraft would significantly expand the limits of the "alley of moments."

To prevent this, General Wayland decided to again use B-29 aircraft to bombard airfields. Since the summer of 1951, B-29 strategic bombers ("Super-Fortress" - "flying fortress", abbreviated as "superforts") began to master night bombing using the Shoran navigation system, but were not yet ready for effective operations at night. So Wayland decided to use them during daylight hours. October of this year was the month of the most intense air battles. Almost daily, groups of 8-9 "superforts" under the cover of fighters bombed construction sites in the Namsi, Taechon and railway

nodes. Air battles went on with varying success. So, on October 16, the fire of fighters and bombers participating in the raid shot down and damaged 9 MiGs - a record score for 1951. But soon combat happiness passed to Soviet aviation. On October 23, despite the impressive cover - 34 F-86s, 55 F-84s, 3 out of 8 B-29s were shot down, and the next day, when up to 34 US aircraft and 40 MiGs participated in the battle during the bombing of the bridge in Suncheon , American losses amounted to 1 F-84 and 1 B-29.

On October 26, Wayland forbade the use of "superforts" during daylight hours, but the very next day, fulfilling the previously approved plan, 8 At 29 bombarded the railway bridge near Sinuiju66 .

Data on the last October battles differ. General G. A. Lobov, who at that time commanded one of the divisions of the 64th Air Corps (later its commander), calls October 30 the last day of air battles. According to his recollections, on that day, 44 of the 56 MIG-15s in combat readiness were met by a group of American aircraft consisting of 21 B-29s and 200 escort fighters. The enemy lost 12 B-29s and 4 F-8467s in air combat. According to American data, the last daytime US strategic air raid took place on October 27th. The object was the railway bridge at Sinuizhu. Participated: from the Soviet side about 95 (!) MiGs, from the American side - 8 B-29s, 16 Australian Air Force "meteors" and 32 F-84s. The B-29s were seriously damaged, and no Soviet losses were reported68 .

Be that as it may, in October the Soviet fighters were successful. They gained air supremacy in the northwestern part of North Korea and forced the Americans to abandon daytime strategic aviation operations and increase the F-86 grouping by deploying the 51st F-86E wing to Korea until the end of the war. American aviation lost 15 aircraft in a month, damaged or destroyed 34 MiGs69. The authors of the official work "US Air Force in Korea", published

by the US Air Force Historical Service (Washington, 1983), they write that then, at the end

October 1951, "many pessimists said that the obsolete "superfortresses" could no longer be used in Korea. Inspired by success, the communists would transfer their aircraft across the Yalu to the airfields of Sinuijzhu and Uchzhu ... Thus, the American Air Force in the Far East failed to prevent the construction airfields in Namsi, Taechon and Samchham..."70
US Air Force Chief of Staff General Vandenburg, giving a press conference after an inspection tour of the Far East, came to the grim conclusion: "In just two weeks, Communist China has become one of the leading powers in the world in terms of air power." He did not mention only the role of the Soviet 64th Air Corps, and he hardly knew about its activities in the Korean War.

The last two months of 1951 were marked by a decline in aviation activity on both sides.
Switching to the use of its strategic aviation at night, the American command faced a number of unresolved problems. The experience in aimed bombing at night was clearly not enough for the Americans. It is known that during the years of World War II, American strategic aviation operated, as a rule, during the day, and British - at night. Now she needed to master the night raids on North Korean targets and ensure a sufficiently high accuracy of bombing. There was some practice in using the Shoran ground navigation system for this purpose72. The development of this method of bombing by strategic bombers began in the summer of 1951. The estimated circular probable deviation (CEP) was about 160 meters. However, this largely depended on the accuracy of the maps and the quality of the on-board equipment on the aircraft. For the first time, bombing on the Shoran system was carried out on October 13 during a raid on the Samchkham airfield. However, the results were disappointing: out of 278 bombs, only 24 exploded within the target, and then on the very edge of the take-off 227

but-landing strip (runway)73 . This kind of bombardment continued in November and December. But the effectiveness was low: there was not enough experience. Before the sorties, the crews of the B-29 carried out only 8 training bombings using the Shoran instead of the prescribed 3574. In addition, it turned out that the coordinates of the main targets of strikes - the Namsi, Taechon, Samchham airfields do not coincide with their position on the maps. The bombing error was up to 400 meters. The enemy's camouflage measures were also misleading. On the runway, similarities of "craters" from the ground were laid out, creating the impression of funnels from bombs. The air defense system was also a big hindrance. 85-
millimeter anti-aircraft guns controlled by gun guidance stations (SON), searchlight stations prevented the B-29 from taking an advantageous position for dropping bombs, especially since the access routes to the target were limited by another Shoran station. Soviet intelligence quickly identified these routes. The most effective air defense systems were concentrated here. The inaccuracy of bombing was compensated for by the Americans by the intensity of the raids and the increase in the power of the bombs. In November, Superforts carried out 26 raids on Namsi airfield, dropping 170 tons of bombs, 160 tons were dropped on Taechon airfield in 23 raids, 80-85 tons of bombs hit Samchham and Uchu airfields, each of which was subjected to 12 night air strikes75 .

The transition of American strategic aviation to night operations certainly complicated the combat missions of units of the 64th Air Corps. Night fighters La-9 (piston) had low speed and could not effectively fight the enemy.

The command of the corps urgently took measures to repel night raids

"superforts". In night battles, the MIG-15 began to be used, although they did not have on-board radar sights and devices. However, their high speed made it possible to approach the B-29 faster, which, in a small light field,
created

ground searchlight stations, was of great importance. In addition, the MIG-15, compared to the La-9, had more powerful weapons, which made it possible to destroy the B-29 from the first attack. This was very important, since the enemy quickly left the beams of searchlights and there was no time for a second attack.
remained.

After several "fortresses" were shot down during the night, the Americans took a number of new measures to ensure their safety. The bombers were painted black from below. Simultaneously with the B-29, the enemy began to use the B-26 ("invader") light bombers, the purpose of which was to suppress searchlight stations from low altitudes. However, to protect the projectorists, the corps command immediately armed their crews with heavy anti-aircraft machine guns. To oppose "migs", the Americans began to use all-weather F-94 fighters equipped with radar search and aiming devices. However, this was not enough. Then B-29s began to appear at night in the searchlight fields only in cloudy weather.

In order to increase the impact on communications, the enemy completely switched light bombers to night operations, mainly for road transport of troops and cargo. This tactic of the Americans was very rational. Separate sections of roads were assigned to certain crews. As they explored the terrain, they lowered their flight altitude and acted more efficiently, since it was rarely possible to hit small targets from high altitudes.

The Korean People's Army simply could not cover at least the most important roads with searchlight fields and anti-aircraft artillery. This required a large amount of forces and means, which she did not have. The use of fighters that did not have locators at low altitude, and even in mountainous areas, was excluded.

However, a solution was soon found. The corps command created several
battle groups consisting of a platoon

searchlights and a battery of 37mm cannons. Each such group (they were called "nomads") received their own sections of roads and changed positions daily. The enemy, not knowing where he would meet the fire this time, was forced to raise the flight altitudes, which immediately reduced his combat capabilities, especially in the use of napalm. As a result, the B-26's main weapon lost some of its effectiveness, and machine-gun fire generally became useless.

Spotlights also played a significant role. The crews of the bombers began to be afraid not so much of anti-aircraft fire as blinding by searchlight beams, which at low altitudes led to a loss of spatial orientation, a collision with rocks and hills. However, the 64th Corps could not solve the problem of combating night bombers radically. The lack of the necessary forces and means did not allow to successfully fight the enemy at night, although the measures taken somewhat reduced the effectiveness of his night raids76 .

1951 ended. Despite many difficulties, the 64th Corps, on the whole, successfully completed the SBOI task. In the daytime, 307 group air battles were conducted with the participation of 43 percent of all those flying to combat

crew assignments. According to the headquarters of the corps, 562 enemy aircraft were shot down. It was the highest result of the year for the entire Korean War. In 16 single air battles, 2 B-26 aircraft were destroyed at night. Hull losses amounted to 71 MIG-15s. 32 pilots were killed77 .

But the main thing was not even the number of downed aircraft - it was more important that the presence of MiGs in the air and the fire of anti-aircraft artillery did not allow American bombers and tactical fighters to effectively perform tasks, upset their battle formations, and reduced the accuracy of bombing and assault strikes. The Americans also recognized this. In April 1952, the United States Navy Proceedings magazine wrote in the article "Lessons from air combat in Korea":

"MIG-15 is actually a lethal weapon for our current types of strategic aviation bombers. It is clear that our air force has made a serious miscalculation by taking the production of the B-36 and B-50 as a basis, instead of developing jet bombers in the first place. Increasing the number of escort fighter groups did not solve the problem posed by the MIG-15s. The experience of the war in Korea shows that the cover of low-speed bombers by jet fighters is practically useless: enemy interceptor aircraft dive through the battle formations of escort fighters forced to fly at low speed and shoot down the bombers covered by them ... "78 .

In October 1951, another magazine, the United States News and World Report, noted: "Bombers began to face stronger and more accurate anti-aircraft artillery fire and ever-increasing opposition from fighter aircraft."[79].

In the battles of 1951, the MIG-15 showed its extraordinary survivability and high weapon efficiency, especially in firing at bombers. Here is how the aviation engineering service of the 64th Fighter Air Corps assessed the combat qualities of this aircraft in the report of the corps commander to the headquarters of the Soviet Army Air Force in September of this year:

"The MIG-15 aircraft showed high combat qualities, reliability in work and ease of operation.

In air battles with American aircraft armed with heavy machine guns, the MIG-15 aircraft is resistant to destruction and fire in flight. The engine continues to work flawlessly in case of serious damage to its units.

Individual aircraft received up to 30-50 bullet holes in battles and returned safely to their airfield. At the same time, when flying at speeds up to 1000 km / h, no scoring of the skin was noticed on the plane. With partial

the destruction of the tail and with a limited course of the elevators, the aircraft retained stability and controllability in flight.

Holes in the rear fuel tank, in the fuel system and when the wiring harnesses are shot through, do not cause a fire on an airplane in the air. In total, one case of a fire on an aircraft in an air battle was recorded.

Of the 22 damaged engines, only 3 engines failed to work in the air due to the appearance of an imbalance and jamming of the rotor due to the destruction of the turbine blades and nozzle apparatus. In other cases, when the turbine disk was shot through and the blades were damaged, the engine worked without interruption. Holes in the combustion chambers and the jet pipe of the fire are not called.

A more vulnerable spot on an aircraft is the elevator and rudder control rods. Of the IS cases of ejection of pilots in 10 cases, it was carried out due to failure of aircraft control. The second vulnerable point is the upper sphere of the cockpit, when damaged, the pilots in most cases get injured from bullet hits and glass fragments of the canopy .

Apparently, the high survivability of the MIG-15 misled American pilots more than once when they believed that they had destroyed the aircraft by flashing it with several bursts of heavy machine guns. The developed films recorded many hits and gave grounds to consider the aircraft shot down, and it returned to base and, after repairs, was again combat-ready in a few days. The armament of the MIG was also powerful: 3 guns (1x37 mm and 2x23 mm).
The fire confrontation with the B-29 has always been in favor of the MIG-15 for several reasons. Its guns had a significantly greater range and destructive firing power than the large-caliber B-29 machine guns. In addition, the "fortresses" had very poor survivability. The counting mechanisms and the machine-gun installations of the bomber themselves did not provide aiming

and effective fire on fighters attacking at high closing speeds (150-160 m/s). The attack itself lasted only three or four seconds.

The foregoing does not mean that Soviet fighter pilots have fully mastered the technology and art of air combat that they had. Summing up the results in the fall of 1951, the corps command noted numerous shortcomings, which indicated that the combat skills of many pilots were still far from perfect. In the report of the corps commander, Major General of Aviation Belov to the Air Force Headquarters in September of this year
it was noted that many pilots have not yet mastered the knowledge of enemy tactics, have not gotten rid of the template in the use of their own tactics, sometimes get carried away in combat with enemy fighters to the detriment of the main task - the destruction of bombers, begin to fire from such distances that do not allow hitting the target . There were also talks about omissions on the part of flight managers of various degrees. Thus, the lack of experience in controlling the actions of jet aircraft from the ground led to the fact that after the takeoff of a subunit or unit, some crews could not find the enemy and take part in the battle. The unit commanders, as was clear from the report, had not yet mastered the ability to properly organize an attack, which reduced combat results; interaction between groups and crews in the air was not always organized clearly enough. Many shortcomings were noted in the work of reconnaissance, which gave out information about the enemy belatedly, in a number of cases incorrectly assessed the composition of enemy aviation groups, which did not allow a correct assessment of the balance of forces. Other shortcomings in combat work were also pointed out.

Such a practical approach to the combat activities of the personnel of the corps indicated that the command of the formation did not close its eyes to the shortcomings, saw them and sought to eliminate them in order to increase the effectiveness of the corps units in the fight against the enemy. And act

Consequently, with the acquisition of experience in subsequent years until the end of the Korean War, Soviet aviators and anti-aircraft gunners significantly improved their combat skills.

1951 was the most intense year in the air war that unfolded in the skies of North Korea. Not by the number of forces involved and the intensity of the fighting. Forces

constantly increased, there were periods of intense action. But this year was the most productive for the pilots of the 64th Corps. For the first time, jet and piston aircraft collided in air battles, and for the first time, aircraft of equal quality in guidance - MIG-15 and F-86 - measured their strength. It was in the 51st that the tactics of modern air combat were developed, the technical characteristics of aircraft, electronic equipment were tested in practice, radio reconnaissance and electronic warfare techniques were practiced, the capabilities of anti-aircraft artillery and radio engineering troops were identified, the pilot's life support system was tested, the problems of ejection, emergency rescue service and much more.

At the beginning of 1952, the air situation became more complicated. In South Korea, a new, 51st wing F-86E appeared at the Suwon airfield. The grouping of "sabers" increased dramatically - from 89 to 165 aircraft, of which about 125-130 fighters constantly participated in hostilities81. The transition of the enemy to night operations of strategic aviation and light bombers acutely posed new tasks for the 64th Corps. The airfield network in North Korea has expanded, and, consequently, the area of responsibility of the corps. Now MIG-15s flew with external tanks, which increased their range to 199 kilometers82. In addition, in the first half of this year, not three, but two air divisions operated in the corps: in January - February - 324 and 303 IAD, in March - June - 97 and 190 IAD83 . Back in the autumn of last year, the Joint Sino-Korean Air Force (JVA) entered into hostilities -

I had to interact with her, to transfer the accumulated experience. unite
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The Chinese Air Force was commanded by the Chinese General Liu Zhen. The North Korean Air Force was led by General Wang Len.

At the request of the leaders of the OVA, the preparation of their units for air combat and cover at first was carried out by Soviet pilots. And soon two divisions, commanded by Fang Zang and Xi Buan, who were armed with MIG-15 aircraft, entered into hostilities.

In this regard, one of the primary tasks of the corps was the gradual
the introduction of Chinese and Korean pilots from the OVA formations into combat operations.

In cooperation with the crews of the 64th Corps, they began to participate in air battles against enemy aircraft. Later, as the OVA pilots gained combat experience, they began to act independently, since the language barrier made it difficult for Soviet pilots and OVA aviators to interact in air battles with the enemy. At the same time, the issues of combining combat efforts and determining directions for the joint operational use of forces were constantly coordinated in advance. Thus, the crews of the 64th Corps took over the reflection of large groups of bombers and fighter-bombers, following under the strong cover of the F-86, and the OVA pilots were involved only when it was necessary to step up efforts. Basically, they fought against small groups, acting up to the front line. Soviet fighters were raised to cut off the F-86s when they were pursuing Korean and Chinese pilots. Soviet pilots continued to perform more complex tasks even when the fleet of the Joint Air Army at the forward airfields of Andong, Miaogou, Dapu and Dagushan exceeded the number of MiGs in the 64th Air Corps.

In 1952, after the B-29 switched to night operations, which reduced their use, the F-80 and F-84 fighter-bombers became the main striking force of the USAF during the daytime. It's still
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made it more difficult for Soviet aviation to carry out tasks, since in comparison with

"superforts" tactical fighters had an approximately fourfold numerical superiority over the forces of the 64th corps84. When repulsing air raids, the fight against the F-86E - "barrier" fighters was carried out mainly in small groups (link, squadron), echeloned at altitudes from 8000 to 14000 meters. This allowed the MiGs to tie up large groups of Sabers on a broad front with comparatively small forces and create sufficiently favorable conditions for their strike groups to fight tactical fighters and bombers.

Often used a technique called by the Americans "box" (Box *in).* It consisted in the fact that a group of "Migs" attacked the F-86s that arrived in the patrol area from a pre-occupied waiting area in the northern section of the "Migs Alley", and when the "Sabers" began to retreat towards the sea, they were intercepted by another "southern" group, concentrated in advance, as if in an "ambush", in the Anchzhu region.

Large groups of MiGs (30-60 aircraft) were used by air units allocated for tactical aviation operations (F-84, F-80, Meteor type, B-26, carrier-based attack aircraft). The tactics of the MIG-15 in the fight against enemy attack aircraft was to ensure that from a height of about 13 thousand meters (above the level of the unmasking contrail) to rapidly attack the enemy and, hitting, at low altitude, leave for their base. The tactics adopted by the "instant" made it very difficult for the "sabers" to fight against Soviet fighters. For an earlier warning of the appearance of "migs" over North Korean territory, the Americans installed a radar station on Chhodo Island in the Yellow Sea and widely used it85 .

B-29 strategic bombers, despite the fact that they completely switched to operations at night, faced new countermeasures for them - the Soviet ground-based air defense system. Powerful searchlights blinded the crews, in their light field

MiGs, adapted for flying at night, attacked, albeit with small forces, slow-moving bulky machines; anti-aircraft artillery, equipped with gun-guidance stations, conducted aimed fire. The air defense was dispersed along the arc of the Shoran stations known to the command of the 64th Corps. This led to the fact that the "superforts" met opposition from air defense systems long before approaching the object. It was not easy to carry out the task in such an environment, and the results of the bombing attacks were by no means always effective. Therefore, for strikes against objects, the Americans chose the most difficult weather conditions.

A typical example of this kind is the raid of 4 B-29s on the railway bridge near Mount Kvoksan on June 10, 1952. "Superforts", following the arc "Shoran", were suddenly illuminated by 24 searchlights. 12 “MiGs” appeared in the light field - two B-29s were destroyed; the third, having received heavy damage, made an emergency landing; the fourth, using electronic interference, was able to escape from fighter attacks86 .

But combat happiness is changeable. On June 23, taking advantage of low clouds and a storm front in the Andong area, 124 F-80 and F-84 tactical fighters, 35 carrier-based attack aircraft under the cover of 84 F-86 and 35 F-9F naval fighters within an hour (from 16 to 17.00) struck a powerful bomb attack on one of the most important objects covered by the 64th Corps, the Supkhun Hydroelectric Power Plant, located 60 kilometers north of Andong. The blow was essentially unpunished. 44 anti-aircraft (85-mm and 37-mm) guns were able to knock out only 2 aircraft. Aviation of the 64th Corps did not operate: over the Andong airfield and to the south was the epicenter of a thunderstorm front,

excluding aircraft takeoff .

But the raid on the Supkhun hydroelectric power station was still the exception, not the rule. As the Americans admitted, they were not able to establish air superiority in the "alley of moments" for any length of time. "Sabers" appeared in this zone only if necessary.

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cover attacking aircraft. The objects of the main strikes, as a rule, were chosen outside the zone of operations of the 64th corps. The command of the US Air Force in the Far East noted an increase in the grouping of fighter jet aircraft in Manchuria (this was mainly due to parts of the OVA. - A. O.), a qualitative improvement in the control and warning system, the emergence of new radars: in the fall of 1952, there were 25 early detection radars and 11 guidance stations. Guidance from the ground allowed the "migs" to reach the 2-5 km zone where the "sabers" were located within a radius of up to 120-130 kilometers from Andong88. Of course, by American standards, the ground equipment of fighter aircraft in Korea did not meet the standards adopted by the US Air Force, but it testified that, and inferior in many aspects to the Americans (living conditions, outdated equipment, etc.), pilots 64 th corps were a formidable force for the enemy. “But,” noted American observers, “they used their air power only for the selfless defense of North Korea and Manchuria and never for strikes against enemy ground targets.”89 American pilots spoke with respect of the Soviet pilots, many of whom showed high pilot skills and professionalism in air combat. Colonel John Mitchell, who became the 52nd commander of the 51st F-86E air wing in June, said: “We divide the MIG-15 pilots into two categories -“ khoncho ”, that is, high-class professionals, and“ students ”... meeting with the "khoncho" we know that we must apply all our art and mobilize all the possibilities of technology in order to successfully cope with such a bird"90. By the way, American pilots, when meeting with MiGs, often noted something that was by no means East Asian.

the appearance of the pilot.

The MIG-15, with its first-class flight performance for that time, forced the command of the US Air Force in the Far East to repeatedly turn to their superiors with a demand to improve

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F-86, to make it adequate, and even superior to the MIG-15 aircraft. The US has worked hard on this problem. As a result, already in June 1952, the 51st Air Wing, and in September, the 4th Air Wing, received a new F-86F fighter. It differed from its predecessor F-86E in increased engine thrust (2360 kg), improved wing design, improved technical characteristics. The maximum speed increased to 1200 km/h, the practical ceiling was up to 15-17 thousand meters, maneuverability, speed in level flight, rate of climb increased91. In 1952, the F-86F received 2 squadrons (in the 4th and 51st wings).

The activity of the MiGs, which, as already indicated, was low in the first half of 1952, increased from August, which was explained by the fact that more and more OVA units and formations were put into operation. This did not go unnoticed by the enemy: the Americans noted a large number of inexperienced pilots who appeared in the skies of North Korea. However, by the end of the year, the situation began to change. The pilots of the US Air Force reported after completing the tasks that the actions of the "MiGs" were distinguished by coherence, good interaction between pairs and links. In many cases, Saber crews had to spend a lot of time maneuvering in air combat in order to take advantage of

position. As a result, the time limit was exhausted and it was necessary to leave for the base without hitting the enemy.92

The crews of the 64th Corps and the OVA more often began to use unconventional tactics, tying up the Americans in air combat and forcing them to hastily retreat towards the sea and eject over the sea, since there was no longer any fuel left.

The combat skill of the MiG pilots especially increased with the beginning of 1953. They professionally used the entire range of altitudes in dogfights and boldly engaged in aerial combat, even when they could avoid it, being outnumbered93. The MIG-15s that flew out on a "free hunt" had fuselages painted blue on the bottom and golden on top. Gaining a height of 13-14

thousands of meters, where they were not given out by the contrail, they became invisible and suddenly attacked the air enemy from above.

But the Americans did not stand still. Many of them mastered the new machine - the F-86F and showed the high art of air combat. The number of aces grew, and everyone who shot down 5 or more aircraft of the OVA or the 64th Corps was considered to be one. There was also a new tactic of "screening" when covering tactical aviation aircraft. "Sabers" formed a "train", which consisted of 6 links: each link of 4 aircraft followed the previous one at a distance of 2 kilometers. Such a battle formation made it possible for most of the "train" fighters to engage in combat with the enemy and reduced the danger for the flight to be attacked "in an instant" in isolation from their aircraft. At the same time, he allowed the link to maintain maneuverability and freedom of action for the attack94. As General G. Barkus, who commanded the 53rd US 5th Air Army until May, noted, the US Air Force had "unconditional air supremacy over North Korea between the front line and the Cheongchon River and superiority between the Cheongchon and Yalu Rivers"95 .

Indeed, the effectiveness of Soviet fighters in 1952 decreased compared to 1951. This was due to a number of reasons. "Superforts" made raids only at night, when the MIG-15s could not provide them with massive opposition. Air battles took place mainly during the day and for the most part CF-86E and F-86F, approximately equal in quality to MIGs. It took a lot of time and effort to train OVA pilots and cover them during combat missions.

In 1953, the situation became even more complicated. For F-86F aircraft
two more wings were rearmed: the 18th and 81st. The "Sabers" of these wings were used as tactical fighters to destroy ground targets, but they could also effectively conduct air battles. At the same time, the American command intensified the operations of strategic and tactical bombers at night in areas where during the day they could meet strong countermeasures.

action. In addition, the prevalence of difficult weather conditions in the winter of 53 ruled out the use of OVA units due to their insufficient flight combat skills. This was offset by the intensity of the flights of the formations of the 64th Corps. Therefore, the tension of the fighting of the corps until the conclusion of the armistice on July 27, 1953 was very high. The average monthly number of sorties in 1953 increased by 33 per cent in comparison with the previous year .

Enemy fighters, who also learned a lot during the war, went into battle only under tactical conditions favorable to them or under obvious

superiority in power.

At the same time, the American command, despite its numerical superiority, was unable to solve the problem of providing tactical aviation operations in the area of responsibility of the 64th Corps by air battles, and in the last year, with the advent of the F-86F aircraft, it began to use the tactics of "free hunting" in the area Andong airfield, in order to call the "MiGs" to battle in a clearly unfavorable situation for them.

In order to impose their conditions on the air war on the 64th Corps, the Americans scattered provocative leaflets and made statements on the radio. So, starting from March 14, 1953, the crews of the aircraft of the 5th Air Army scattered leaflets on all objects that were subjected to their bombing assaults. The leaflets contained one question: "Where is the Communist Air Force?" Radio Seoul was heavily exaggerating the topic of the weakness of the Korean-Chinese Air Force. The crowning achievement of this propaganda provocation was the so-called Mullah project. On the night of April 26, two B-29s dropped more than 1 million leaflets over populated areas along the Yalu River. Leaflets written in Chinese, Korean and Russian called on MIG-15 pilots to fly their aircraft to South Korea, to the Kimpo airfield. It was further stated that each pilot who flew over would receive political asylum and a reward in the amount of 50 thousand dollars. To the one who

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will be the first to fly, in addition they will give another 50 thousand dollars. On May 10 and 18, another half a million leaflets were scattered in the same area. American Command Radio broadcast the contents of the leaflets in Korean, Chinese and Russian.

None flew. Already after the war, in September 1953, an officer of the KPA Air Force, Lieutenant Ro Kum Suk, fled the DPRK on a MIG-15bis aircraft, but, as it turned out, he had never heard of any rewards for this97 .

The last months of the "air war" in Korea were marked by a decrease in the activity of air battles. At the same time, more and more pilots of the OVA of the Sino-Korean armed forces participated in them and fewer aviators of the 64-th corps. For the Americans, these months were the heyday of the aces of the 5th Air Force. Their number grew and by the end of 1953 amounted to 39 people98 . Air battles continued until the last day of the war.

On July 27, 1953, an armistice was signed in Panmenzhon.

Giving an overview of the combat activities of the MIG-15 crews during the war years, the commander of 64-1st Corps, S. V. Slyusarev reported to the Air Force headquarters that the most difficult, but effective combat operations of the corps date back to 1950-1951, when 564 enemy aircraft were shot down in air battles. Own losses were: pilots - 34, aircraft - 71. The overall ratio of losses was 7.9: 1 in favor of the 64th corps. In 1952, the effectiveness of the corps decreased. 394 enemy aircraft were shot down. Own losses - 51 pilots and 172 aircraft. The overall ratio of downed aircraft is 2.2:1. For 7 months of 1953, 139 American aircraft were destroyed in air battles, and 25 pilots and 76 MiG-15bis fighters were lost, which was 1.9:1 in favor of the 64th Corps99. At the same time, a characteristic feature of the 53rd year was that the proportion of such a method of action as patrolling in the air increased, since with the increased use of F-86F fighters by the enemy, duty

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at airfields did not provide timely interception of enemy fighters in difficult weather conditions.

In total, during the war, corps fighters destroyed 1097 enemy aircraft, losing pilots and 319 aircraft, 212 US aircraft were

shot down by anti-aircraft artillery 100. According to updated data from the General Staff of the Armed Forces of the USSR, Soviet aviation formations in Korea lost 120 pilots and 335 aircraft. The total losses of Soviet military personnel in this war are 299 people101 .

American data on the results of the air war in Korea differ significantly from the Soviet ones. This is not surprising, since the Soviet report concerns only air battles in which aircraft of the 64th Corps participated, while the Americans report on the results of the combat activities of their aviation along the entire front, including operations on ground targets, the fight against Korean-Chinese front-line aviation, and also air battles with both Soviet air units and OVA formations.

According to American information, the US Air Force and Navy, as well as the aviation of US allied countries, destroyed 976 enemy aircraft. Their losses amounted to 1986 aircraft, of which 1041 aircraft were due to enemy actions and 945 due to reasons beyond the control of the enemy. Losses in people amounted to 1729 people, including those killed - 1144, wounded - 306, missing - 30 and captured - 249 people102 .

In air battles between MIG-15s and US Air Force fighters, according to American data, 792 enemy aircraft were destroyed103. Such a discrepancy in the reports of the parties on losses is obviously due to the fact that the high survivability of Soviet jet fighters made it possible to save these aircraft in many cases when the enemy considered them shot down. In addition, this number includes MIG-15s flown by less experienced Korean and Chinese pilots, especially before 1953.

For many years in the USSR, the participation of Soviet pilots in the Korean War was covered with a veil of secrecy. Only in the 1980s did reports of this become

appeared

lyatsya in print, mentioned in some documents. "Stalin's falcons", taking off from the airfields of Manchuria to fight American bombers and fighters, were desperate guys who went through the harsh school of the Patriotic War and showed themselves to be excellent air fighters in the skies of Korea. They courageously, in extremely unfavorable conditions for themselves, fought with the American aces. Both were worthy opponents. Many Soviet pilots were awarded orders, 35 became Heroes of the Soviet Union. And if American ace No. 1 Captain McConnell shot down 16 enemy planes, two Soviet pilots surpassed him: Captain N. Sutyagin shot down 21, Colonel E. Pepelyaev - 20 enemy planes104 .

Meanwhile, under the infernal rumble of American bombing of cities and villages in the DPRK and the whirlwind of air battles between American aircraft and Soviet fighters in the "alley of moments", negotiations continued. By October 1952, the parties agreed on three of the four points. Firstly, it was decided to establish a demarcation line according to the front line at the time of the cessation of hostilities and the signing of a truce. The parties agreed to withdraw their troops from this line by 2 kilometers, that is, to create 4-
kilometer demilitarized zone. Secondly, two special commissions were created to monitor compliance with the terms of the truce. Thirdly, within 3 months it was agreed to convene a political conference for a peaceful solution of the Korean question and the problem of the withdrawal of all foreign troops. With regard to the repatriation of prisoners of war, the parties agreed on 2-
monthly period of its implementation, but could not agree on a mechanism for resolving this issue: whether the principle of voluntariness should be respected

return of prisoners or not105. On December 3, 1952, the UN General Assembly adopted a resolution on the non-violent repatriation of prisoners of war. But only on July 27, 1953, a ceasefire agreement was signed. The war ended in July.

The irretrievable losses of the parties amounted to: 400,000 South Korean troops, 54,000 Americans, 17,000 other "UN troops"; losses of the PRC and the DPRK - from 2 to 4 million military personnel and civilians; the losses of the USSR - 299 people106 .

The end of the Korean War was largely facilitated by the death of I.V. Stalin in March 1953 and the coming to power in the United States of President D. Eisenhower in January 1953. Significant American losses in Korea (157,350 killed and wounded) caused widespread dissatisfaction with the foreign policy of the Truman administration. D. Eisenhower's promise to end the war turned out to be the decisive factor that ensured his victory in the presidential election in 1952. The new American leadership, analyzing the experience of the war in Korea, was forced to admit the failure of the "containment" strategy. Indeed, the US military machine on the Korean Peninsula did not collide with the "main enemy" - the USSR, but with the armed forces of the DPRK and the PRC, and after three years of war, it ended up on the same line from which the US started the war. American military theorists regarded this fact as an absolute failure of the United States.

The Korean War went down in history as one of the most difficult and bloody local wars of the 20th century. In terms of human losses, it ranks third after two world wars - about 4 million Koreans died during the fighting, and 84 percent of them were civilians. The whole of North Korea lay in ruins, and there were great destructions in the south. It is no coincidence that the Western press called everything that happened in Korea in those years a "great limited war."

From the events of the late 1940s and early 1950s, the US ruling circles realized that the Soviet Union, its allies, the leftist forces in the world supporting the USSR, were a very serious adversary.
It is known that, despite all the measures taken by the Soviet leadership to hide the participation of Soviet pilots and anti-aircraft gunners in the Korean War,
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The Ricans were well aware of this. But official Washington remained silent throughout the three years of the war. Why? Many years later, Paul Nitze, who headed the policy planning headquarters at the US State Department during the Korean War, said that he had prepared a secret document that analyzed all the pros and cons of disclosing the USSR's participation in the war. As a result, the US government came to the conclusion that Soviet participation in the war was kept secret from the public. This was dictated by the fear that an outraged public would demand retaliatory action, which threatened with unpredictable consequences. Both superpowers did not want and were afraid of the escalation of the conflict, fraught with nuclear war.

Notes

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[3] There. Archival reference library. F. 07, op. 18, d. 6, p. 1.

[4] There. F. 102, op. 10, d. 15, p. 12.

s Ibid. Archival reference library. F. 07, op. 18, d. 6, p. 1.
[6] There. F. 102, op. 10, d. 15, p. 1.
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[8] Archive of the President of the Russian Federation (hereinafter - AP RF). F. 45, op. 1,d. 346, l. 7.
[9] Quoted from: *Volkogonov D. A.* Seven leaders. M., 1995. S. 287.
[10] Khrushev Remembers. bd. By S. Talbott. Boston, 1970, pp. 367-368.
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[12] American National Security. policy and process. bd. By A. Jordan, W. Taylor. London, 1981. P. 64.
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[14] WUA RF. F. 07, on. 23a, d. 257, p. 20.
[15] Khrushchev Remembers. P. 367-368.
[16] Cit. by: *Volkogonov D. A.* Decree Op. S. 288.
17 AP RF. F. 45, op. 1, d. 346, l. 94.
[18] Cit. by: Red Star. 1992. 14 Aug.
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[24] AP RF. F. 45, on. 1, d. 347, l. 41-45.
[25] *HuntM.* Op. cit. P. 459.
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[27] *HuntN.* Op. cit. P. 460-461.
[28] Ibidem.
[29] Ibid. P. 463.
[30] Ibid. P. 465-467.
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[39] Ibidem. 247
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[46] There. L. 16-17.
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m there. L. 7.
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[71] Ibidem.
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[91] Ibid. P. 512.
[92] Ibid. P. 608.-
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[96] TsAMO. F. 15, on. 178612, d. 88, l. thirty.
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[100] There. L. 32.
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CHAPTER IV
USSR: ASYMMETRIC RESPONSE

1. The strategy of "massive retaliation"

In Korea, the war was still going on, cities were burning, people were dying, but on the political field the ice of the Cold War had already begun to melt. Three circumstances contributed to this: the election of D. Eisenhower as President of the United States in the fall of 1952, the death of Stalin in March 1953, and the futility of continuing the Korean adventure. There were hopes for a warming international climate. In the summer of 1953, the war ended on the Korean Peninsula. French intervention ended in 1954

Vietnam, in 1955 in Vienna, a state treaty of four powers - the USSR, the USA, England and France - was signed with Austria. The country became independent, democratic, neutral. The occupying troops of the great powers were withdrawn from it. Even earlier W. Cher

Chill, who was Prime Minister of Great Britain from 1951 to 1954, suggested resuming "top meetings." After the appearance of the atomic bomb in the USSR, he no longer called for war against the Soviet Union, but, on the contrary, advocated the convocation of the leaders of the four great powers.

The United States was also inclined to this.

The failures of the Americans in their attempt to "roll back communism" on the Korean Peninsula also affected the position of official Washington. The Korean War also had a great impact on the domestic situation in the United States. Having brought considerable profits to a rather narrow circle of monopolists, it aggravated inflationary processes in the country and led to a significant deficit in the state budget. Significant losses (157,530 killed and wounded) caused widespread discontent with the foreign policy of the Truman administration. D. Eisenhower's promise to end the war in Korea proved to be the decisive factor that ensured his victory in the 1952 presidential election. The new American leadership, analyzing the experience of the war in Korea, was forced to admit the failure of the strategy of "rolling back communism." Indeed, the US military machine on the Korean Peninsula did not collide with the "main enemy" - the USSR, but with the armed forces of the DPRK and the PRC, and after three years of war, it ended up on the same line from which the war began. American military theorists regarded this fact as an absolute failure of the United States.

In addition, changes in the Soviet leadership after the death of Stalin and the execution of Beria, the clear desire of the new leaders of the Soviet Union to take measures to soften the international situation created favorable conditions for the resumption of negotiations between the great powers of East and West.

Such a meeting took place in July 1955 in Geneva. The Soviet delegation was headed by the Prime Minister of the USSR N. A. Bulganin and the Chairman of the Presidium of the Central Committee of the CPSU N. S. Khrushchev. The United States was represented by President D. Eisenhower, England - succeeded Churchill as prime minister

nistr A. Eden, France - Prime Minister E. Faure. For the first time since 1945, the heads of government of the great powers met together to discuss the most important issues of war and peace. The Soviet government proposed to carry out a disarmament program providing for the reduction of both conventional and nuclear weapons. It was supposed to limit the number of armed forces for the USSR, the USA and China to 1-1.5 million people, and for England and France—

up to 650 thousand. Of course, in those years there was no control mechanism, and in the conditions of mutual distrust this problem was of great difficulty: the national means of control of the parties were still far from perfect to ensure reliable monitoring of the progress of the disarmament of the partner under the agreement. In order to somehow overcome this obstacle, the delegation of the Soviet Union proposed the creation of an international body with the right to demand from the government documentation on the level of military spending, to have posts on an agreed basis in ports, railway junctions and air bases, staffed by personnel from interested states. However, representatives of the West considered this project not effective enough. President Eisenhower put forward the "open skies" plan. The plan provided for the observation of military equipment of other countries from the air by means of photo and electronic control. The adoption of such a plan for the United States, which has already mastered

tactics of aerial electronic and photographic reconnaissance and in the summer of 1955, which had a new U-2 military reconnaissance aircraft almost ready for commissioning, inaccessible to air defense systems, the "open sky" significantly increased the level of reliability of their arms control. But for the USSR, which, in the arms race that unfolded in those years, sought to catch up with the United States as soon as possible and, if possible, get ahead, "open skies" meant revealing to American and other Western experts the main secrets of their strategic weapons programs. And this was in the context of the Cold War, when bloc confrontation dominated politics

traditional mentality, and negotiations on the normalization of relations and disarmament were of secondary importance, often only propagandistic. Therefore, Khrushchev, knowing full well that in the Soviet Union all work on the creation of strategic weapons was carried out in the depths of the country, in areas to which access was closed to everyone who did not participate in these programs, rejected the "open skies" plan. It was not possible to agree on arms control in Geneva.

But, despite the differences, an atmosphere of dialogue between the USSR and the Western powers was nevertheless created, and this already in many respects contributed to the warming of the international atmosphere. In 1955-early 1956, there seemed to be some improvement in the international situation. At the signing of the state treaty on Austria, US Secretary of State John F. Dulles and USSR Foreign Minister V. M. Molotov stood side by side on the balcony of the Belvedere Palace in Vienna. Dulles greeted the cheering crowd with a handkerchief. Molotov raised his clenched hands above his head. In April 1956, Bulganin and Khrushchev arrived on a visit to England. During the visit, Khrushchev never tired of repeating that the era of rockets had come, and he called planes and ships "flying and floating coffins." When the wife of British Prime Minister A. Eden asked Khrushchev: "What missiles do you have? How far can they fly?" He replied: "Our missiles can not only reach your British Isles, but they will fly farther." And this was said when the R-5M missile (range - 1200 kilometers) had not yet been adopted in the USSR. Nevertheless, the words of the Soviet leader made the right impression and further aroused the West's curiosity about Soviet missile weapons.

However, despite some easing of international tension, relations between the USSR and the USA, between the Soviet Union and the Western world as a whole were extremely uneven. Short-term warming streaks interspersed with acute international crises,

sometimes putting humanity on the brink of nuclear war. Confrontational thinking prevailed in the military-political circles of both sides, based on the opposing military blocs of NATO and the Warsaw Pact. Any crisis that arose was accompanied by threats to use force against another country or a show of force.

Extreme mistrust between the ruling circles of the USSR and Western countries did not allow the development and application in practice of effective measures of control over various options for disarmament, and the development of confidence building measures.

Moreover, taking into account the growth of the defense capability of the USSR, the presence of atomic weapons and their carriers, the US military-political leadership believed that they would be able to create strategic forces superior to the Soviet Union due to the "advantage" in nuclear weapons and means of delivering them to objects. hit. The United States tried to find a new path that would lead to the creation of superiority over the military power of countries

Soviet bloc primarily in strategic aviation. Forces intended to influence groupings of troops in theaters of military operations were assigned a secondary role.

The American ruling elite intended to achieve superiority in strategic forces by adopting hydrogen weapons, which are more powerful than nuclear weapons, and by equipping theater forces with tactical nuclear weapons. As noted by the well-known American political scientist G. Kissinger, "the coming to power of the Eisenhower government in 1953 was marked by the adoption of a new defensive policy, which placed much greater emphasis on nuclear forces, both strategic and tactical" 1 .
Thus, since the beginning of the 1950s, the United States, although it lost its monopoly on nuclear weapons, but, having superiority in their number and means of delivery and continuing to some extent remain inaccessible to a retaliatory strike, developed a new strategy. This stratum

The strategy that went down in history under the name of the strategy of massive retaliation "was adopted in the United States shortly after the election of D. Eisenhower as president of the country. It provided for the conduct of an exclusively general, and no other, nuclear war against the USSR and other socialist countries. The main means of war is the American ruling circles was seen as a powerful strategic aircraft capable of delivering nuclear strikes deep behind the Soviet Union, and it was assumed that the belligerent powers or their coalitions possessing nuclear weapons would use all available means, without any restrictions, including nuclear weapons. " ...Our strategic doctrine, wrote H. Kissinger, almost did not recognize any intermediate states between total war and total peace. She considered a general war as the only solution to the problem .

A general nuclear war was conceived as a unilateral and unpunished act on the part of the United States, and, in contrast to the strategic concepts of the first post-war years, waging a war against the USSR without the use of nuclear weapons was excluded. It was supposed to destroy the military-industrial facilities and administrative-political centers of the enemy through massive strikes with the widespread use of nuclear weapons, carried out by strategic aviation forces, to decisively undermine the economy, disrupt the administration of the country, break the enemy’s will to resist and achieve in this way the strategic goals of the war. The final defeat was assigned to all available forces and means, and above all to the troops of the European countries of NATO. The main method of unleashing the war was considered a surprise attack.
"Massive retaliation" as the official US strategy was announced in a speech by US Secretary of State D. F. Dulles to the Council on Foreign Relations in New York on January 12, 1954. He stated that henceforth the United States would rely primarily on

the terrifying power of massive retribution , on its "great ability to V retaliation, instantaneously, by means and in areas of one's own choice3 .
December of the same year, this strategy became official for NATO under the name of the "shield and sword" strategy.

The main provisions of this coalition strategy were developed by the Pentagon back in the 1940s and approved by the NATO Council in 1952. The decisive role of the smashing "sword" was assigned, as before, to American bomber aircraft. However, unlike in 1952, in 1953-1954 the Pentagon proceeded in its military-strategic principles from the application not only

strategic, but also tactical and operational-tactical nuclear weapons. The European NATO states were assigned the role of a "shield", a kind of supplement to the US armed forces in the European theater of operations. These forces were to:

provoke the concept of the armed forces of the socialist countries so that they can be destroyed by NATO nuclear strikes;

seize the territory of the countries of Central and South-Eastern Europe;

prepare and organize counter-revolutionary actions in socialist countries .

The adoption of US military-strategic concepts by NATO was based on the inclusion of the FRG in this military bloc. This promised both a significant increase in its strike force and a significant strengthening of conventional armed forces, in particular ground forces in the Central European theater of operations. It turned out that the peoples of the countries of Western Europe, and above all the FRG, would wage wars fraught with the greatest losses, defending the interests of the United States.

Measures were taken to more reliably tie the Western European countries of NATO to Washington's nuclear chariot, to make them accomplices in the nuclear war being prepared by the Pentagon against the USSR and its allies. At the session of the NATO Council in April 1953,

the issue of equipping NATO armed forces with nuclear weapons was raised.

"In order to neutralize the possibility of a negative attitude of the allies towards the American plans for atomic strikes," US Secretary of State John Dulles said at a secret meeting in January 1954, "some information should be exchanged with Western Europeans on this issue and some of them should be allowed to acquire several atomic bombs "[5].

In connection with such installations, the US Congress revised in 1954 the McMahon Act of 1946, which prohibited the dissemination of information about nuclear weapons. Under the new provision, delivery vehicles for nuclear devices could be placed at the disposal of US allies in the bloc.

In general, in those years, as evidenced by the two-volume collection "US Foreign Policy, 1952-1954", containing declassified documents, the issue of the use of atomic weapons against the Korean, Vietnamese and Chinese peoples was repeatedly raised at meetings of the National Security Council. Thus, on March 31, 1953, President Eisenhower suggested that the need "to expand the war beyond the borders of Korea and launch the atomic bomb" could not be ruled out. On December 3, 1953, State Department spokesman Bowie noted that "since the recommendations of the Joint Chiefs of Staff include all communists as the enemy, it will be necessary to subject the Soviet and Chinese armed forces and military installations in the Far East to an atomic attack. This means atomic bombings of essentially all cities in China."

On January 8, 1954, President Eisenhower declared: "If we can simultaneously carry out an atomic attack on all the forward bases of the Communist air forces, the enemy will be bled from the very beginning of hostilities. This is also our plan for Europe. "

There were many publications in the American press of those years, similar to the article in Colliers magazine, about which

mentioned above. Their goal was to accustom the American people and the public of the Western world to the idea of the inevitability of atomic war,

the winner of which will undoubtedly be the United States and the countries that support it.

Since the main emphasis in achieving victory in a general nuclear war was placed on "air power" - a huge fleet of jet strategic bombers was created. With the adoption of the new strategy, they were given the palm in the arms program. Almost half of all funds of the US Department of Defense were allocated for the development of the Air Force. The budget was distributed as follows: about 46 percent - Air Force, about 28 -

Navy and about 23 percent - the army. With regard to appropriations for the purchase of new equipment, this difference is even more noticeable: the Air Force received about 60 percent of the allocated funds, the Navy - about 30, and the army - only about 10 percent.

Budget allocations for the development and construction of the Air Force grew every year. If at the beginning of the 1950s they did not exceed 8-9 billion dollars, then in 1954 they amounted to 11.5 billion, and in 1956 - 15.8 billion dollars, while appropriations for the army remained approximately at the same level (about $7.8 billion). During 1950-1955, the number of strategic bombers in the Strategic Air Command (SAC) was increased to 1,500 aircraft, of which about 1,000 were in combat.

parts.

Such an intensive commissioning of new types of strategic bombers was largely facilitated by the artificially raised panic in the US press about the US lagging behind the USSR in the construction of strategic bombers. The reason for this was an air parade in Moscow in July 1955, at which the American experts present saw the first Soviet strategic bombers with their own eyes. A. Dulles, who headed the US Central Intelligence Agency at that time, later wrote:

"In 1954, there was evidence that the USSR was producing heavy long-range intercontinental bombers comparable to our B-52s. At first, all evidence, including the 1955 parade, led to the conclusion that the Russians were adopting this weapon system as the main element of their offensive forces and planned to produce heavy bombers at a pace that their economy and technology would allow ... All this led to speculation in our country about the "lag in bombers"7 .

It must be said that already at the May Day air parade in 1954, a new Soviet jet heavy bomber with 4 jet engines was first demonstrated. It became known as M-4. It was the brainchild of the design bureau of V. M. Myasishchev. The creators of the aircraft prepared it as an intercontinental bomber. However, although in range it could reach the American continent, its capabilities were not enough to return to its bases. Refueling in the air in the USSR in those years had not yet been mastered. Therefore, the question of whether to consider the M-4 an intercontinental bomber was very problematic. The designers believed that after a nuclear strike on the continental United States, their bomber could land in a neutral country (for example, in Mexico). But the Soviet government rejected this method of using the M-4, reasonably pointing out to its creators that in the event of a world war, neutral countries were unlikely to be near the United States8 .

Apparently, foreign experts who watched the 1954 parade in Moscow also regarded it this way. The new bomber was marked by them as an aircraft

long-range, but there was no sensation.
An air parade in Moscow in the summer of 1955 had a completely different effect, where a new Tupolev turboprop long-range bomber, the TU 95, was shown, capable of delivering nuclear strikes on the United States at sufficiently high speeds and significant altitudes and returning to their bases.

A. Gorelik and M. Rush, the experts of the leading research institution of the United States - RAND Corporation, state: "The Soviet air parade in July 1955 was probably one of the most successful military demonstrations in peacetime. It greatly influenced the Western assessment of the strategic balance"9 .

In itself, this fact testified to the unreliability of the "massive retaliation" strategy. He once again reminded that in the 20th century, with the rapid development of scientific and technological progress in many industrialized countries, hope for a long-term monopoly of any type of weapon (such as, for example, strategic bombers were seen by the Pentagon) is absurd. Meanwhile, in fact, there was no lag behind the United States, which by that time already had more than 1,500 strategic bombers, there was no. The organizers of the noisy campaign about the "lag" of the United States knew this very well.

"The bombing gap never became a reality," said the head of American intelligence, Allen Dulles. Indeed, the Pentagon needed this invention in order to frighten the average American taxpayer, to force him to meekly give money for building up, for the arms race.

The program for the construction of strategic aviation in the United States by that time had already reached a significant scale. Since the beginning of the 1950s, the main SAC aircraft has been the 6-engine turbojet B-47 Stratojet medium strategic bomber, the first samples of which had a maximum speed of 960 km / h, a service ceiling of 12,500 meters and a flight range of 8,000 kilometers. This bomber was considered at that time the highest achievement in aircraft construction, and the US SAC command had high hopes for it to overcome the Soviet air defense, counting on its maximum speed and flight altitude. By the beginning of 1955, almost all units and divisions of the SAC, which had previously been armed with B-29 and B-50 aircraft, were re-equipped with B-47 aircraft. In the mid-50s, strategic air 260

The US military command had only 375 B-36s and already 1200 B-47s. However, the flight range of this aircraft did not make it possible, when it was based on airfields in the continental United States, to reach Soviet targets deep in the rear. Therefore, since 1954, obsolete B-36 heavy bombers began to be replaced by B-52 jet heavy bombers with a range of 16,000 kilometers (later - 18,000 kilometers) and a speed of 960 km / h. In order to speed up the program for their construction, the fiction that the USSR was "overtaking" the United States in strategic aviation was inflated. This allowed the Pentagon and the military-industrial complex to secure huge funding for the new program. In 1959, there were already 500 V-52s in service. But the question of the inaccessibility of the hinterland of the Soviet Union always haunted American strategists. They tried to solve this problem, on the one hand, by mastering the refueling of bombers in the air, and on the other, by creating advanced bases closer to the borders of the USSR.

For single and multiple refueling in the air on aircraft

a bomber, special equipment was installed, and as part of the strategic aviation command, a fleet of tanker aircraft was created (by the 60s - up to 1000 aircraft) based on the S-97 and Boeing-707 transport aircraft, which received the names KS-97 and KS 135, respectively In England, converted Valiant bombers were used for this purpose.

Since the fleet of special tanker aircraft available in the SAC, due to its small number, could not simultaneously refuel all bombers in the air, the SAC decided to keep part of the B-47 in constant combat readiness at its forward air bases in England, Spain, Morocco, Alaska and the Pacific Islands. This system of duty at advanced air bases received the code name "retaliatory actions" ("Reflex action") in the SAC. titled "from

veto actions" the American military covered the aggressive essence of forward basing, the purpose of which was to ensure the success of the first, surprise nuclear strike on the USSR. other countries of the socialist camp, makes it possible to use it more quickly, simultaneously and on a massive scale.

As part of the "massive retaliation" strategy, the so-called "nuclear aviation doctrine" was born, in which not only the principles of combat use were revised, but also the tactics of various types of aircraft and missiles in the conditions of the use of nuclear weapons *. This doctrine, published in Air Force in January 1956, stated that of all branches of the armed forces, the air force had the greatest capability for decisive combat. It was also pointed out that the Air Force is the main military means ensuring the seizing of the initiative and the achievement of decisive results in the war. The main place among the branches of aviation was assigned to strategic bombers as a force capable of inflicting irreparable or hard-to-repair damage on the enemy in a short time. Armed with atomic, hydrogen, and, if necessary, bacteriological and chemical bombs, strategic aviation was to become a force providing America, as its strategists expressed it, "national security", or rather, a weapon to intimidate and intimidate peoples, the main means of policy "from the position of strength." US military theorists placed such hopes on strategic aviation based on the ability of strategic bombers to

* In the United States, "aviation doctrine" refers to theoretical views on the special role and purpose of aviation in war. Soviet military science proceeded from the fact that the state has a single military doctrine common to all branches of the armed forces.

time with a sufficient degree of probability to quickly reach any point on the territory of any country, regardless of its distance from the state border, act at any time of the day, relatively unexpectedly inflict powerful strikes, using new means of destruction of a large destructive

strength.

According to the American hawks, strategic aviation was to play a special role in the initial, decisive period of a nuclear war. The first strikes against the most vital centers of the enemy's military and economic potential were supposed to be carried out purely suddenly. The main principles of the use of strategic aviation were considered just

sudden and massive actions. But unlike the 40s, when all hopes were pinned only on strategic aviation, now she had to act in combination and in cooperation with other types of aviation. The tasks solved by strategic aviation during this period were outlined at that time
the commander of the SAC, General Lemay, formulating them as follows:

the primary task is to win an air battle by destroying the country's vital facilities: first of all, airfields based on nuclear-powered aircraft, as well as nuclear industry enterprises; in the future - the most important industrial centers and communications;

the second task is to systematically and completely destroy industrial facilities and other sources of enemy power by conducting coordinated attacks against a large number of pre-designated targets;

the third task is constant readiness to support the actions of the ground forces. (However, the Pentagon believed that strategic aviation, while performing the first two tasks, should not be used, except in exceptional cases, in the interests of the ground forces.)

The most effective form of combat use of strategic aviation was recognized as an air operation according to the plan of the supreme command. In the operation of thought 263

The participation of not only all or most of the forces of strategic bomber aviation, but also tactical and carrier-based aviation located in theaters of military operations, and "the actions of all these air forces must be pre-planned both in time and in objects.

Naturally, much attention was paid to advanced bases in European NATO countries from which the carriers of nuclear weapons were to act.

General Günther, Commander-in-Chief of the Allied Armed Forces of NATO in Europe , stated in 1954: “We determined that our strategy requires the use of nuclear weapons, regardless of whether they are used by the enemy or not . meanwhile, in the West it was known that the USSR had atomic, and then (since 1953) hydrogen weapons, and the inevitability of a crushing retaliatory strike against US air bases in Europe frightened the leaders of the Western European powers. "Europe is densely populated, - emphasized the American professor Spanier, - its cities are located too close to each other, civil, military, tactical and strategic goals are mutually intertwined. A nuclear war on land would be a catastrophe for Europe, probably spelling the end of European civilization .

Indeed, during NATO's "Carte Blanche" exercise conducted in 1955, 1.7 million people were "killed" and 3.5 million "injured" by mock nuclear strikes, and the number of "radiation-affected" people simply could not be predicted13. Such losses for small countries (for example, for Norway - 3.8 million people in 1955) would mean a catastrophe.

But American strategists were mainly concerned about their military bases in Western Europe. The success of US strategic aviation depended on the survivability of forward bases, and they could easily be put out of action by the enemy. In addition, every year the vulnerability of American bombers to funds from 264

Soviet air defense system, which was continuously improved and represented

a growing threat to them, especially as they travel across vast expanses to objects deep in Soviet territory. It became theoretically more and more difficult to overcome an air defense system saturated with radar assets, equipped with supersonic fighters and an increasing number of anti-aircraft missiles. Moreover, the time it took to reach the objects of attack, measured in hours, allowed the attacked side to have time to take effective countermeasures and thus frustrate the plans of the aggressors. All this called into question the success of a sudden massive air attack. The inevitability of a devastating retaliatory strike seemed undeniable.

That is why the military-political leadership of the United States now counted on the creation of other carriers of nuclear weapons: ballistic and cruise missiles. Long-range and medium-range missiles certainly outnumbered aircraft. Ballistic missiles - invulnerability, speed, range and the ability to carry a powerful nuclear charge. They could operate regardless of the weather and time of day; The air defense of the country on which the strikes were made could not counteract them. Cruise missiles, despite the fact that they approached the aircraft in speed and flight altitude, were also promising weapons: their cost compared to the aircraft was much lower, they did not depend on weather conditions; they were small in size, which made it difficult to detect them, especially when operating at low altitudes; could be launched from the ground, from a ship, from an aircraft - and due to all these qualities, in mass use, they were very difficult targets for enemy air defense. In addition, both types of missiles did not require such a scarce and expensive flight crew. Well, the lower accuracy of hitting a target was more than covered by the power of a nuclear charge and made it possible to operate on the most extensive objects: cities, airfields, training grounds, hydroelectric facilities, etc.

"To the extent," wrote the American military theorist G. Kahn, "as we move from aircraft to missiles as the basis of our strategic forces, war becomes more calculable than before ... The rocket is primarily a product of engineering success. Its the main parameters include data such as circular error probable, explosive power, reliability, target vulnerability, accuracy in target location.The total effect of these variables can be quite accurately expressed by a mathematical formula ... So military campaigns that, in their scope, are not have precedent in the past, become, in essence, a problem in applied mathematics"14 .

The plans of the Pentagon envisaged the creation in the near future of very powerful nuclear forces from primarily intercontinental and operational-tactical missiles, as well as strategic bombers. By that time, in the United States and other capitalist countries, work had already begun on the creation of rocket weapons based on the well-known experience of fascist Germany.

In 1954, the Ministry of the Air Force, the Ballistic Missile Division of the Research and Development Directorate at the Air Force Headquarters, the Von Neumann Committee and the Remo Foldridge Engineering Corporation began joint development of the Atlas intercontinental ballistic missile (ICBM), the contract for which was received by the company " Conveyor". In 1955, the creation of the Titan ICBM and the Tor medium-range ballistic missile (by Martin Marietta and Douglas Aircraft, respectively) began. And in 1957, the Boeing company began developing the Minuteman ICBM, which, unlike previous ICBMs, did not work on liquid, but on solid fuel.

The Directorate of Special Projects at the main headquarters of the Navy was engaged in the development of ballistic missiles "Polaris", designed for use from nuclear submarines. The contract for this system was received by Lockheed Aircraft.

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Continued the development of missile weapons and the army (ground forces) of the United States.

The command of the army, which was relegated to the background with the adoption of the strategy of "massive retaliation", saw in rocket weapons a chance to equal the value of the Air Force and Navy and made attempts in the mid-50s to take part in the development of medium-range guided missiles. In this regard, since 1955, W. von Braun, under the auspices of the Chrysler company, began to develop the Jupiter medium-range missile based on the Redstone, which was later transferred to the Air Force.

So, first in strategic bombers, and then in missiles, US leaders saw the "absolute weapon" with which they were going to make the entire world community dependent on America's "national interests".

A ballistic missile, American rocket experts wrote, "can fly past any currently known means of interception. It is capable of hitting any target . "

Simultaneously with work on ballistic missiles, a model of cruise missiles was being developed, which at that time was called projectile aircraft. Cruise missiles, created at the turn of the 40-50s - "Matador", "Regulus", "Navajo" - had a flight range of several hundred kilometers. They were supposed to significantly supplement the strikes of strategic aviation, and the Snark cruise missile (range - up to 10 thousand kilometers) could already operate directly from the USA through the territory of the USSR.

However, the rockets of that time also had obvious shortcomings. One of them was their low technical reliability. So, even in 1963, the reliability of the Atlas and Titan rockets was 70 percent (that is, out of 100 launches, only 70 were successful). Another major drawback, especially of strategic missiles, continued, as in the war years, to be their low accuracy in hitting targets. The increase in flight range tre

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There were no reliable control systems, and radio navigation, astroinertial and correlation control systems were not widely used due to their low noise immunity and other shortcomings. Autonomous inertial control systems installed on board the aircraft were not affected by interference, but with an increase in the flight range, the circular probable deviation (CEP) increased during their use, that is, the accuracy of hitting the target decreased. (For cruise missiles, the KVO reached 0.5 percent of the range until the mid-1960s.) This, in particular, was one of the reasons for the decommissioning of the Snark cruise missile.

Inertial control systems were widely used on long and medium-range ballistic missiles, since their powerful nuclear charge ensured hitting the target even with a significant deviation, as well as on cruise missiles with a range of about 1000 kilometers (Matador - 960 kilometers) and with a CEP of about 3 kilometers. Thus, this generation of missiles, like the V-weapon, could only operate on sufficiently large targets with coordinates known in advance. However, when compared with ballistic missiles of the same range, cruise missiles had a number of advantages. They cost much less, were put into operation faster and

provided significant flight ranges with less weight. And the fact that air defense systems could resist cruise missiles was not considered a major drawback in those years. It was believed that with the massive use of cruise missiles equipped with nuclear warheads and skillful tactics (as was the case at the beginning with the V-1), even a small number of cruise missiles that overcame enemy air defenses would be able to complete the task. In 1954, the Matador and Regulus operational-tactical cruise missiles entered service with the US Air Force and Navy. Already at the exercises of the armed forces of the USA and NATO in 1953-1956 (Carte Blanche, Whipsow, Temp, Dividend, Corona, etc.), methods of their combat use were widely worked out.

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In 1957, B-47 bombers were equipped with the Rascal air-to-ground cruise missile with a range of 160 kilometers and a speed of 1,700 km/h. Work was being completed on the creation of the Hound Dog cruise missile, which possessed supersonic speed, was equipped with a thermonuclear warhead and had a flight range of 800-1000 kilometers. It was intended to arm the B-52 bombers. The new aviation and missile technology that came into service with the Air Force and other branches of the armed forces inspired Pentagon generals to look for new ways of global war against the socialist bloc. The aviation "nuclear sword" turned into a "rocket sword".

But, as events showed, it was a double-edged weapon: Soviet
The Union did not stand still either.

2. Rockets take the stage

The Soviet Union, from the beginning of the Cold War, having accepted the military-strategic challenge of the United States, and later NATO, decided to oppose their might with the military might of the socialist countries. In response to Washington's policy "from a position of strength," Moscow began to pursue its own policy of power. New types of military equipment began to enter the army and navy in ever-increasing quantities. The creation of the NATO bloc led to the fact that the Soviet Union, which reduced its armed forces from 11,365 thousand to 2,874 thousand in 1945-1948, began to increase them again in 194916. In 1952-1953, the full motorization and mechanization of the Soviet Army was completed, aviation was re-equipped with jet aircraft, and the fleet was improved. The troops received new samples of tanks, anti-aircraft guns, radar equipment, and automatic weapons. Large Soviet forces stationed in the countries of Eastern Europe, in the event of war, could quickly seize significant territories west of the Elbe and reach the English Channel.

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Rocket weapons also developed. Directly to the creation of a rocket with a range of up to 1200 kilometers (R-5), domestic designers began only after successful tests of the R-1 missiles in 1951. Tests conducted from December 30, 1954 to February 7, 1955, confirmed that the rocket basically met the specified requirements17 .

Here it is appropriate to recall the episode cited by Academician AD Sakharov in his memoirs. At a meeting of the New Year, 1955, *in* high military-industrial and military circles, Sakharov, speaking of the successful tests of the R-5, remarked: . *O.),* explode over ranges, but never over cities." After his toast, Sakharov recalls, "there was silence at the table, as if I had said something indecent." Discharged the awkward pause

Deputy Defense Minister Mitrofan Nedelin. He told an anecdote: “The wife is lying in bed, and the husband is praying in front of the icon: “Lord! Strengthen and direct.” She says: "You pray to strengthen, and I myself can direct." So let’s drink to strengthen!”18 .

However, the R-5 rocket was developed only with a non-nuclear warhead. In connection with the successes of nuclear scientists, by the Decree of the Council of Ministers of the USSR No. 674-292 of April 10, 1954, it was decided to create a rocket capable of carrying a nuclear charge. She became the rocket R-5M. On February 2, 1956, test tests of this missile equipped with a nuclear charge were carried out. The tests were successful. By the Decree of the Council of Ministers of the USSR No. 842-464 of June 21, 1956, the R-5M missile with a flight range of 500 to 1200 kilometers was put into service19. By August 1, 1956, 30 R-5M missiles had already been fired, 80 missiles were ordered for 1957, and 100 missiles for 1958.

The adoption of strategic nuclear missile weapons required a fundamental revision of the role of means of armed struggle in modern warfare.

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And it was done. The years 1946-1959 were notable for the hard work of state and military bodies in creating strategic ballistic missiles, equipping combat units with them, and developing principles, forms and methods of their use. In 1957-1958, almost all divisions of the RVGK engineering brigades were re-equipped with the R-5 M missile, and 15 regiments mastered this missile in the Air Force20. According to the plan for the use of missile units in the event of hostilities, approved in November 1957, their redeployment to the border areas began. Two missile battalions of the 72nd RVGK engineering brigade were deployed in December 1958 on the territory of the GDR21. Such a deployment made it possible to deliver a nuclear missile strike to the entire depth of the Western and Middle Eastern theater of operations, where the main groupings of troops and military bases of the United States and NATO countries were located.

The combat use of units with R-5M missiles in those years was planned by analogy with the non-nuclear complexes R-1 and R-2 and was envisaged to ensure the actions of ground forces in front-line offensive and defensive operations.

This, of course, did not meet the requirements for the combat use of parts of medium-range missiles (RSMs), but at that time it was determined by objective factors, namely:

the enormous influence of the experience of the Great Patriotic War;
development of the theory of the combat use of RSD simultaneously with the development of these weapons in the troops;
the inclusion of missile units in various types of armed forces;
strict secrecy of all information related to nuclear missile weapons.

With the adoption of the R-12 missile (Decree of the Council of Ministers of the USSR No. 238-106 dated March 4, 195922) and the successful testing of the R-1423 missile, the combat use of RSD began to be planned for pre-selected targets from stationary positions. According to the draft manual on

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Combat use in 1959, in the event of aggression, missile units were no longer transferred to the operational subordination of the fronts, but were used only by decision of the Supreme High Command. The development of mine launchers for RSD reflected a fundamentally new look at their application.

In those years, the leadership of the USSR also gained the first experience of demonstrating RSD as a means of military-political pressure on a potential enemy. About

The effectiveness of this means is evidenced by the announcement of the Soviet government on November 5, 1956 about the possibility of using nuclear missiles against England and France, which attacked Egypt, which led to the resolution of the Suez crisis. Missiles became an effective tool in the politics of the Cold War era. The advent of modern weapons (intercontinental ballistic missiles, nuclear missile submarines, anti-aircraft missile systems, strategic bombers, etc.), requiring small but highly qualified personnel to maintain them, allowed the Soviet government to reduce the very large and expensive ground forces. In 1955, the USSR reduced the size of its armed forces by 640,000 men, in 1956 by another 1,200,000, and in 1957 by 300,000 men. 63 divisions and brigades were disbanded, part of the military schools, 375 ships were put into conservation. In a statement of the Soviet government dated May 14, 1956, in connection with the largest (1,200,000) reduction of Soviet troops, it was said that the USSR "strives to contribute to the practical implementation of the disarmament program."

Despite the ideological differences between the two blocs, steps were taken to soften their positions. In 1959, Nikita Khrushchev visited the United States with a large delegation. This visit eased tensions between the two superpowers and opposing blocs. A meeting of the heads of government of the USA, USSR, Great Britain and France was scheduled for May 1960 in Paris, and Eisenhower was invited to visit the USSR.
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This warming in relations between the USSR and the USA also affected the military sphere. Speaking on January 14, 1960 at a meeting of the Supreme Soviet of the USSR, N. Khrushchev, recalling that the Soviet Armed Forces, which numbered 5 million 763 thousand people in 1955, were reduced in 1955-1958 by 2 million 140 thousand people, contributed from on behalf of the government, a proposal to reduce the Armed Forces of the USSR by another 1,200,000 people. The Supreme Council approved this initiative, which was supposed to demonstrate the truly peaceful mood of the Soviet leadership at that time, the desire to alleviate international tension.

By this time, it was becoming more and more obvious to the American military-political leadership that the doctrine of "massive retaliation" did not justify the hopes placed on it. The success of the main strike of strategic aviation of that time depended on the survivability of forward bases, and they could easily be put out of action by the enemy. In addition, every year the vulnerability of bombers from Soviet air defense systems increased, which was continuously improved.

In January 1957, ground tests of the S-75 Dvina anti-aircraft missile system (SAM) began. It consisted of a radar guidance station, two-stage anti-aircraft guided missiles (a starting engine on solid fuel, a marching engine on liquid), 6 launchers, on-board equipment and power supplies. The technical characteristics and design features of the complex made it possible to roll it up in 4 hours, and deploy and configure it in 4-5 hours. The speed of its movement on the march on the roads is up to 20 km / h.

This air defense system blocked the capabilities of the aircraft available at that time in the West and even the promising means of air attack, which were reported in the foreign press. The effectiveness of the S-75 simply amazed military specialists, especially front-line anti-aircraft gunners. Destroyed targets moving at a speed of 1,500 kilometers per hour at an altitude of 22,000 meters. within 10 minutes

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the division destroyed up to 5 targets coming at intervals of 1.5-2 minutes. The downed plane took 2-3 missiles. Not a single anti-aircraft artillery system possessed such characteristics. In November 1957, "Dvina" entered the troops. Soon his modifications "Desna" and "Volkhov" appeared, and in 1961—
The Neva air defense system, which made it possible to destroy targets on a collision course at altitudes from 200 meters to 10 kilometers at a distance of 6 to 10 kilometers - at target flight speeds of up to 1500 km / h. This already lowered the combat capabilities of American aircraft.

But the main thing was that the strategy of "massive retaliation"
turned out to be unsuitable for achieving the political goals of the United States and NATO.

Firstly, the Soviet Union did not take the path of a "mirror" response to the United States on their strategy of "massive retaliation", but relied on missile weapons, while strategic aviation became an additional means of the USSR aerospace forces. From the mid-1950s, the Armed Forces of the USSR entered a new stage of development. Aviation was equipped with intercontinental bombers, and nuclear missile weapons were introduced into the troops on a massive scale.

Secondly, the Anglo-French-Israeli aggression against Egypt (1956), the conflict related to Syria (1957), the events in Lebanon and Iraq (1958), the defeat of the French in Indo-China, and the British in Malaya - all indicated that unleashing a nuclear war in any conflict in the "third world" would be impossible and extremely dangerous. The strategy of "massive retaliation" could not prevent the collapse of the colonial system and the growth of the influence of the USSR, despite the political mistakes of the Khrushchev government in the 1950s. The inadequacy of "massive retaliation" in the emerging international situation confused the Pentagon's cards and eventually forced the United States to abandon this strategy.

The Soviet Union was entering the nuclear-missile era. According to a number of military-strategic indicators, he was ahead of So

United States, but was always ready for new disarmaments in the name of peaceful coexistence.

At the same time, Soviet foreign policy was far from ideal. How to behave correctly in the new nuclear-missile age - this was not immediately realized. There were many propagandistic, broadcast statements - there were not enough balanced, serious initiatives. Improvisation, largely ill-conceived actions, voluntaristic, strong-willed approaches to solving the most important problems of life in the world community harmed.

3. 1956 - the year of crises

During these years, a number of crises also occurred in the countries of the socialist community. N. S. Khrushchev's secret report "on the cult of personality", reported after the XX Congress of the CPSU (February 1956) became known throughout the world. In the circles of the world community, he caused an extremely loud resonance. It had a particularly acute effect on the life of the countries of the recently created (1955) Warsaw Pact. The previously latent centrifugal currents initiated by the opponents of the USSR in the countries of the socialist camp, the dissatisfaction of certain sections of the population in these states with Moscow's policy immediately after Stalin's death began to manifest itself openly. This was expressed in unrest in Poland and the GDR (1953), but received a special scope in 1956 during

political crises in Poland and Hungary.
Signs of an approaching crisis in the Polish People's Republic began to appear even before 1956. In March 1954, at the XI Congress of the Polish United Workers' Party (PUWP), the report of the Secretary of the Central Committee, Bolesÿaw Bierut, already spoke of the need to democratize party and political life in the country. The most compromised figures were removed from the party apparatus and a number of political prisoners were released from prisons, including a well-known political figure

Vladislav Gomulka. At the third plenum of the PUWP Central Committee in January 1955, critical voices were heard against the top party leaders, who were accused of violations of the law and miscalculations in economic policy. The "fermentation of minds" intensified in Polish society, and especially among the intelligentsia24 . Various public organizations and discussion clubs (for example, the "Crooked Wheel Club") were formed, where questions of political and social life were sharply raised. The weakening of censorship made it possible to bring to the discussion of the general public the problems of ideology, economics and history that worried society - they were considered in the journals Nova Kultura, Pshegland Kulturalny, Simply, and others. All this excited the consciousness of the people. The anti-Soviet broadcasts of foreign radio stations, such as Voice of America, Free Europe, and others, played a significant role. The development of free-thinking in Poland was also facilitated by the change in the situation in the USSR: the termination of the "case of pest doctors", the revision of the "Leningrad case", the exposure of Beria and his henchmen, the beginning of the rehabilitation of political prisoners, etc. All this could not but affect the internal political situation in Poland as well, giving rise to those political shifts that in 1956 led to a crisis in Soviet-Polish relations.

A powerful impetus for political change was given by the 20th Congress of the CPSU and the report of N. S. Khrushchev "On the cult of personality and its consequences" in February 1956. In Poland, they learned about this from the report of the PUWP delegation on the work of the 20th Congress of the CPSU, announced at a meeting of party activists in Warsaw on March 3-4. Despite the secrecy of Khrushchev's report, it soon became public knowledge. Thus, on March 10, the central organ of the PUWP, Tribuna Ludu, published an editorial with the title of Khrushchev's report. It became a sensation and led to ferment in the party and society. On June 28-29, a demonstration of workers from large enterprises in Poznaÿ turned into street riots. The demonstrators put forward slogans: "Freedom!", "Bread!", "Down with communism!". It was already

very serious action. There were even skirmishes between demonstrators and internal security forces. The spontaneous uprising was brutally suppressed with the help of troops: 70 people were killed, about 500 were wounded25 .

The Soviet leaders, worried about what had happened in Poland, were looking for a way to "normalize" the situation. A charismatic leader was needed to keep the Polish people in the socialist commonwealth and in the Warsaw Pact organization, created just a year ago. The Kremlin, and above all Khrushchev, saw such a leader in Vladislav Gomulka. As a victim of Stalin's repressions and as a person who had his own view of the "Polish path to socialism", he enjoyed unquestioned authority in the country and the party, opposed the repressive policies of recent years.

Sympathy in the PUWP for Gomulka and support for him by N. S. Khrushchev led to the fact that in August he, as well as the previously repressed party members M. Spychalsky and Z. Klishko, were rehabilitated and reinstated in the party. 17

October Gomulka was included in the commission for the preparation of the new composition of the Politburo. On the same day, a meeting of the Politburo was held. It was decided to recommend Gomulka for the post of first secretary at the plenum of the Central Committee of the PUWP, which was to open on October 19.

From that moment on, events began to develop with extraordinary rapidity. Here is what Khrushchev wrote in his notes “XX Congress and Poland”: “We learned through our ambassador (P.K. coup, as a result of which anti-Soviet-minded people will come to power .

The Kremlin decided that the time had come for decisive action. On October 18, USSR Minister of Defense G.K. Zhukov orders the Northern Group of Forces in Poland and the Baltic Fleet to be put on alert.

On October 19, members of the Soviet delegation N. S. Khrushchev, V. M. Molotov, A. I. Mikoyan and L. M. Kaganovich arrived in Warsaw.

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Meetings of Polish and Soviet representatives took place on 19 October and 20 October. As Khrushchev recalled, "the conversation was stormy. The question was directly: are the Poles for the Soviets or against? The conversation was rude, without diplomacy. We made our claims and demanded an explanation of the actions that were directed against the USSR" 27. The CPSU delegation did not agree with the fact that the Politburo did not want to include Marshal K. Rokossovsky, who at that time was the Minister of Defense of Poland, in the new composition. The focus was on the problem of Polish-Soviet relations. During its discussion, Gomuÿka, describing the situation in the country, declared his confidence that the PZPR would be able to successfully cope with the situation and keep Poland in the socialist community and the Warsaw Pact. He demanded to clarify the status of Soviet troops in Poland, to stop the interference of official Soviet representatives in the internal affairs of Poland28 .

Meanwhile, outside the walls of the Belvedere Palace, events continued to unfold. The Soviet units of the Northern Group of Forces, put on high alert on October 18, were not idle. By order of the Commander-in-Chief of the Allied Forces of the Warsaw Pact, Marshal Konev, the tank division moved from the place of deployment to Warsaw. The situation was extremely disturbing. When Khrushchev asked Rokossovsky how much he could rely on the Polish troops, he replied: "Now the Polish troops will not all obey my order, although there are units (he named them) that will carry out my order" 29 .

While heated debates were going on in the Belvedere, a Soviet tank division was approaching Warsaw. Upon learning of this, the Polish leadership urgently created two headquarters - military and civilian. The military headquarters was entrusted with the task of monitoring the movement of Soviet troops and informing the Politburo. "The civil headquarters was supposed to provide assistance to the military headquarters if necessary. Its assets were students and workers of the automobile plant, who formed a workers' militia. 800 people were armed with small arms. Self-defense detachments were created at other plants and factories30 .

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The participants in the meeting were informed about the approach of a tank division to Warsaw. As Khrushchev recalled, in the midst of a heated argument, a very agitated Gomulka approached him. He said: “Comrade Khrushchev, a Russian tank division is moving towards Warsaw. I beg you to give an order not to bring her into the city ... I ask you to stop the movement of Soviet troops. Do you think that only you need friendship with the Polish people? I, as a Pole and a communist, swear that Poland needs friendship with Russians more than Russians need friendship with Poles. Don't we understand that without you we can't

exist as an independent state? The Soviet delegation, [31]
after conferring with Rokossovsky, decided to stop the march of the tank division. The situation was relieved when the Polish leadership became convinced through its channels that the Soviet troops had been withdrawn from Warsaw32 .

On October 20, the Soviet delegation returned to Moscow, having previously agreed that negotiations would continue in the near future in Moscow33 .

In those October days, rallies began on the streets of Polish cities, especially Warsaw, which reached their greatest intensity on October 19-21. Only after a mass (300 thousand people) rally in the capital near the Palace of Culture on October 24, at which Gomulka spoke from the balcony, calling for an end to the "meeting movement", the life of the country began to return to normal.
The decisions adopted at the plenum of the Central Committee of the PUWP began to be quickly implemented. K. Rokossovsky was dismissed from the post of Minister of National Defense (he soon returned to Moscow), the institute of Soviet military advisers was liquidated, the heads of political agencies in the armed forces were replaced, party leaders in the voivodeships were replaced, representatives of the United Peasant and Democratic parties, the role of the Sejm as a legislative body increased, the church began to play a large role in public life"34 .

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On October 24, an expanded meeting of the Presidium of the Central Committee of the CPSU was held in Moscow with the participation of the leaders of the communist and workers' parties of the socialist countries: W. Ulbricht and O. Grotewohl (GDR), T. Zhivkov (PRB), A. Novotny (Czechoslovakia) and the representative of the PRC - Liu Shao -qi. It discussed the situation in Poland and Hungary, where popular unrest was also growing. Khrushchev reported on the trip to Warsaw of the Soviet delegation and the new composition of the Politburo of the PUWP Central Committee. He spoke about the atmosphere of sharp disputes in which the discussion took place, about Gomuўka's speech, which played a key role on the Polish side in the Belvedere Palace35 .
The principles of sovereignty, equality in relations between socialist countries, and non-interference in each other's internal affairs are reflected in the Declaration of the USSR government on the foundations for the development and further strengthening of friendship and cooperation between the Soviet Union and other socialist states. It was adopted on October 30, 1956 and published the next day in the Soviet and Polish press.

The Declaration stated that "the countries of the great community of socialist nations can build their relations only on the principles of complete equality, respect for territorial integrity, state independence and sovereignty, and non-interference in each other's internal affairs"; proclaimed "the need to fully take into account the historical past and the characteristics of each country that has embarked on the path of building a new life", as well as the readiness to take "measures to ensure the further development and strengthening of economic ties between the socialist countries in order to eliminate any possibility of violating the principle sovereignty, mutual benefit and equality in economic relations"; agreed to consider questions of the status of Soviet troops in Poland, who were there "on the basis of the Potsdam agreement of the four powers and the Warsaw Pact" and the recall of Soviet advisers to the USSR. A lot of space in the Declaration was devoted to the events in Hungary36 .

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The second round of Soviet-Polish talks took place in Moscow on 15-18

November 1956. The joint declaration adopted at it affirmed the principle of complete equality, respect for territorial integrity, independence and sovereignty, and non-interference in internal affairs37. The declaration determined the status of Soviet troops in Poland, economic relations between the two countries and the procedure for the further repatriation of Poles who ended up in the USSR after World War II.

The results of the talks were greeted with enthusiasm in Poland. The new leadership of the country gained authority in all sectors of society. The crisis of Soviet-Polish relations was overcome. Poland was the first of the countries of the socialist camp to achieve a favorable compromise for the country with an all-powerful patron, and to achieve it by political means, which allowed the leadership of the USSR to refrain from the use of force. After the conferences in Warsaw and Moscow, it seemed to the rulers of the USSR that the "Polish question" had been resolved. In Poland, until the end of the 70s, the resistance to the Soviet "model of socialism" (always latently existing) did not reach such a degree of intensity as, for example, in Czechoslovakia in 1968, however, the demonstration by the Soviet side of complete mutual understanding between the USSR and Poland, although it contributed to a significant to the extent of strengthening Polish-Soviet relations, but did not put an end to differences. The "Polish question" like a ghost, like "the shadow of Hamlet's father" loomed in the background in all the vicissitudes of the confrontation between the USSR - the USA and NATO - the Department of Internal Affairs.

The Polish crisis was resolved by political means, although Moscow was ready to use force and even took steps in this direction. It was possible to avoid violence because the political leadership of the USSR showed prudence, the ability to compromise, having met the constructive position of the Polish leaders on the issue of building Soviet-Polish relations on new principles.

"Polish October" showed the possibility of a humane solution of disputes between the USSR and other countries.

us of the socialist community. And although the methods of forceful pressure did not disappear from the arsenal of political means of the USSR, in its foreign policy an increasing place began to be given to the search for other political methods that take into account the interests of the other side.

Events in Hungary played out according to a different scenario. As in other countries of Eastern Europe, decisions of the XX
Congress of the CPSU. However, the Hungarian party political leadership, headed by the first secretary of the Central Committee of the Hungarian Working People's Party (VPT), M. Rakosi, continued the same political course taken back in Stalin's times, which caused increasing discontent in the country.

In the summer of 1956, general discontent in Hungary reached a breaking point. In the USSR, this caused alarm. A high-ranking party delegation was sent to Budapest to work out the necessary measures to stabilize the situation. MA Suslov, a member of the Politburo who visited Hungary, however, did not see any special reasons for concern at that time. After this visit, Rakosi's supporters proposed "to develop and implement measures to ensure the strengthening of party work in the Ministry of Internal Affairs and its local bodies, as well as the adoption of other necessary measures to combat the subversive activities of the opposition and enemy agents."

However, the campaign "to restore order" launched by the government has stirred up an already restless Hungarian society. There was a danger of an explosion of popular anger. The plenum of the Central Committee of the VPT, which began its work on July 18, 1956 with the participation of Mikoyan, who arrived in Budapest to clarify the situation, removed

Rakosi from the post of first secretary of the Central Committee of the party. Erne Gere became the first secretary of the party. He, in essence, continued the previous course, which was supported by the absolute majority of the Politburo, and only Janos Kadar, a well-known politician recently released from prison, advocated political change38. However, Hungarian society continued to seethe. The Soviet leadership was aware of the complexity of the situation

tions. After the June meeting of the leaders of the communist parties in Moscow, N. S. Khrushchev wrote to I. Tito that if the Hungarian situation worsens, then the use of any means to overcome the crisis is not ruled out39. In the Soviet Union, Hungary was considered "the weak link in the socialist camp"40 . By the autumn of 1956, an explosive situation had really developed, which the party and state leadership, headed by E. Gehre and Prime Minister A. Hegedusch, failed to foresee and defuse.

October 22, 1956 at the Budapest Polytechnic University to the usual demands formulated by students - convening a party congress, removing the Stalinists from the leadership, expanding socialist democracy, returning to the post of former prime minister I. Nagy (removed from this post back in 1955 for attempts to carry out democratic reforms) , the rejection of state deliveries of agricultural products that are excessive for the peasantry, etc. - demands were added that reflected national democratic aspirations: granting civil rights, allowing a multi-party system, holding free elections, returning the old national symbols. The students demanded the normalization of Soviet-Hungarian relations on the basis of equality and the principle of non-interference in each other's internal affairs, as well as the withdrawal of Soviet troops from Hungary. On October 23, 1956, a rally of solidarity between students and Polish workers in the struggle against government policy was planned.

The situation in the country also caused concern among the Soviet leadership. The military units stationed in Hungary were put on high alert. On October 23, the head of the KGB of the USSR, I. A. Serov, and the first deputy chief of the General Staff of the Soviet Army, M. S. Malinin, were already in Hungary.

On this day, students and the residents of Budapest who joined them went on a demonstration, demanding the removal of the "symbol of Stalinist tyranny and political suppression" - a monument to Stalin, the return to Rakosi's homeland, on

who went asylum in the USSR in order to be brought to justice for his anti-people actions and crimes41 .

The demonstration and rallies on October 23 were peaceful, but in the evening, after the end of the working day, hundreds of thousands of representatives of various social groups gathered near the parliament building, including workers from the largest industrial enterprises in Budapest. They demanded that the disgraced Imre Nagy speak before them, insisted on his return to the post of prime minister of the country and the continuation of his reforms. The demonstrators began to dismantle the monument to Stalin. Some of the protesters, led by students, went to the radio building to get their demands broadcast on the radio. The leadership of the Hungarian radio did not want to talk to the students, and the guards responded to the students' attempt to enter the building with fire. Blood was shed... Outraged demonstrators disarmed a group of soldiers who had arrived to support the guards of the building. The bloodshed, the casualties among civilians led to the fact that a number of policemen and military personnel took the side of the masses. The uprising began.

At night, the Hungarian party authorities took urgent measures to replenish the country's top leadership with people from the democratic wing of the party, in the hope that with their help it would be possible to calm the rebels. I. Nagy was urgently reinstated in the top leadership and appointed by the Presidium of the VPT to the post of Chairman of the Council of Ministers. But both this and the fact that a state of emergency was introduced could no longer turn the tide of events.

On the same day, USSR Minister of Defense G.K. Zhukov informed N.S. Khrushchev of an urgent request from Gera to assist in dispersing a "demonstration" of an unprecedented scale42. However, Moscow hesitated. Only after a new appeal from Budapest, which spoke of "an exceptionally dangerous situation and the need for Soviet intervention," the Presidium of the Central Committee of the CPSU decided on military intervention. When the decision was made, Zhukov gave the order to a special corps of Soviet troops. On October 24, at dawn, the Soviet units entered Budapest.

The main forces of the special corps in Hungary from 2 to 4 o'clock local time, having entered the Hungarian capital, took control of the most important objects of the city and cleared the area of the radio station from the rebels. It should be noted that the Soviet troops then did not meet resistance.

The demonstration of force was intended to intimidate the "rebellious Hungarians", but the tanks on the streets and the dispersal of the demonstrators only exacerbated the situation in the country. These actions led to the introduction of new demands, in particular, the withdrawal of Soviet troops from the country, which supported the collapsed Hungarian party leadership. And it still did not realize the scale of the danger.

On October 25, instead of trying to peacefully resolve the aggravated conflict (in those conditions it was quite possible), Gera began to threaten. This significantly complicated the situation in the country. After the provocative shelling of unarmed demonstrators on October 25 on the square near the parliament building (there were many killed and thousands of wounded), the fraternization of students and youth with Soviet soldiers stopped.

On the same day, October 25, J. Kadar took the post of Gere. The election of Kadar to the post of leader of the HTP allowed the Nagy government to take concrete steps to end the crisis in a democratic way.

However, the presence of Soviet troops, their participation in the suppression of the uprising contributed to the fact that, along with the demand for the democratization of the country's internal life, the rebels raised issues of national sovereignty and the withdrawal of Soviet troops from Hungary. I. Nagy, only under pressure from the masses in order to alleviate tension, in the interests of ending armed skirmishes, in one of his speeches on the radio on October 25, was forced on behalf of the government, with the approval of the Central Committee of the VPT, to declare that Soviet troops would be withdrawn "immediately after the restoration of peace and order "43 .

I. Nagy's statement was regarded by the Central Committee of the CPSU as unauthorized, not agreed in advance with the Kremlin "both

the desire to start negotiations with the Soviet Union on the withdrawal of Soviet troops from Hungary.

After that, the government of I. Nagy, without mentioning the withdrawal of Soviet troops, began to resolve the conflict with the rebels by peaceful means. It called for a ceasefire and declared an amnesty for those who laid down their arms.

The people, however, continued to put pressure on the government to comply with its three main demands: to withdraw Soviet troops; to form a government on a coalition basis; liquidate the state security agencies responsible for the mass shooting on October 25 at the parliament. Union

Hungarian writers demanded an immediate ceasefire and proposed an amnesty for the participants in the fighting and withdraw the Soviet troops to the barracks. But there were also more radical demands: to withdraw Soviet troops from the country before the beginning of 1957, and also to withdraw Hungary from the OVD44 .
The events of the following days heated up the situation even more: there were executions of peaceful demonstrators in Miskolc, Gyor, Esztergom, Kecskemét and other cities. They showed that forceful measures do not reach the goal and national reconciliation is possible only as a result of concessions and negotiations, satisfaction of at least part of the demands of the insurgent people. Negotiations were started with the rebels in Budapest. On the evening of October 28, the prime minister spoke on the radio and promised to satisfy part of the demands of the rebels. He outlined the program of the renewed government, which also included representatives of the once influential party of small farmers. A government order was issued for an immediate ceasefire. The Soviet units also ceased hostilities, respectively. In agreement with representatives of the USSR, the government of I. Nagy disbanded the state security agencies. Organs of people's self-government, revolutionary and workers' soviets, which had arisen spontaneously, were recognized. The national coat of arms and the national holiday were restored

March 15 is the Day of Remembrance of the Revolution of 1848. Nagy's statement said that, in accordance with the agreement reached with the government of the USSR, the withdrawal of Soviet troops from Budapest would begin.

The government statement caused relief and was met with approval from the population: it meant a turning point in the confrontation between the government and the rebellious people, the prerequisites for a peaceful dialogue and overcoming the confrontation began to take shape, and the possibility of a peaceful way out of the current situation opened up.

Soviet troops were withdrawn from Budapest on October 30. But the process of mutual movement towards a peaceful way out of the situation was overshadowed by a new serious incident. On October 30, at the Budapest City Party Committee, a group of rebels noticed soldiers of the disbanded state security agencies. The rebels believed that the arrested were kept in the basement of the building. Wanting to free them, those gathered in the square tried to enter the building. The delegation sent there was destroyed, after which a shootout began, which ended with the storming of the building and the execution of its defenders45 .

The new uprising in Budapest turned out to be unexpected, both for the Hungarian and for the Soviet leadership, and for the world community. As early as October 28, the UN Security Council put on the agenda the question of the situation in Hungary. Around the same time, the Moscow leadership became aware of the principled positions of the US administration on the Hungarian issue. Fear of a final break with the principles of the Yalta and Potsdam agreements (especially since Washington knew about the impending invasion of Egypt by Anglo-French-Israeli forces) and the unwillingness of a possible conflict with the USSR led the Washington administration to proclaim a policy of non-intervention on October 27, about which US Ambassador to Moscow C. Bohlen on October 29 additionally notified the Soviet leadership46. On the same day, Israel, having started a war against Egypt, invaded the Suez zone.

cash. The armed forces of England and France intervened in the military conflict. All these factors ultimately had a decisive influence on the policy of the USSR, whose leaders changed their tactics of behavior towards Hungary47 .

However, the position of the West regarding the Hungarian events was

ambivalent, contradictory and largely inflammatory. The Hungarian population was extremely disturbed by the broadcasts to Hungary from the Voice of America and Free Europe radio stations. Often, these broadcasts contained, in essence, a program of action for people who did not agree with the order in Hungary. In addition, the materials of these radio stations were compiled in such a way that many Hungarians had the illusion that if the development of events takes on an "emergency character", then "the West will not leave Hungary in trouble." However, when the events really took on an extraordinary character, then everything turned out quite differently. As studies of recent years show, the Western powers had no intention of going to the aid of the Hungarian rebels48 .

In the leading circles of the USA and NATO, it was believed that the events in Hungary were an internal affair of the Soviet bloc. In this regard, the testimony of F.-J., then Minister of Defense of the FRG, is eloquent. Strauss:

"At first the Americans give hope to the Hungarians, but when things get serious, they leave the Hungarian people to their fate. There could be no talk of military intervention by NATO. The suppression of the Hungarian popular uprising by the Red Army was not seen as an action affecting the interests of NATO...

I am still firmly convinced today that the Russians would not have carried out the invasion if the Americans had taken care in advance to take a clear position .

However, a combination of circumstances, international factors (Washington's position, the progressing Suez crisis, etc.) pushed most of the Soviet ruling elite to take decisive action. November 1 I. Nagy on the radio proclaimed the neutrality of Hungary and announced its readiness to live in friendship with all neighboring countries,

including the USSR, on the principles of equality and independence50. It was time for the Soviet government to take action. The situation in the world was very difficult. Military operations continued in Egypt. The political crisis in Poland has just been settled. Hungary's withdrawal from the Warsaw Pact and the socialist community could lead to unpredictable consequences for the world of socialism and the prestige of the Soviet Union. And the decision was made.

On November 4, 1956, at 12 noon, Marshal Zhukov reported to the highest party authorities: "At 6 hours and 15 minutes on November 4 of this year, Soviet troops began an operation to restore order and restore the people's democratic power in Hungary "51. It was also reported on the occupation of cities, including the Hungarian capital, the most important bridges, railway junctions and other strategic facilities of the country. Attention was drawn to the fact that the Hungarian garrisons did not offer resistance to the Soviet troops.

I. Nagy, after the active offensive of our troops on Budapest, informed the people of the country and the world community on the radio about "obvious intentions to overthrow the legitimate democratic Hungarian government"52 and, with the rest of the communist reformers from the government, took refuge in the building of the Yugoslav embassy in Budapest. Radio Budapest in Russian and Hungarian languages constantly broadcast the message: "The Hungarian government asks the officers and soldiers of the Soviet Army not to shoot. Avoid bloodshed! The Russians are our friends and will remain!"53 .

Early in the morning of November 4, almost simultaneously with the start of military operations, the appeal of the new Revolutionary Workers 'and Peasants' Government of Janos Kadar, created in Solnok, sounded on the waves of Solnok radio. It said that this government had asked the command of the Soviet troops to "help our people defeat the black forces

reaction and counter-revolution, restore the people's socialist system, restore order and tranquility in

our country"54. With the appearance in Budapest on November 7, 1956, J. Kadar began a new chapter in the relationship between Moscow and Budapest.

The Hungarian troops did not really resist, but the spontaneous resistance of the rebels in a number of areas of the Hungarian capital continued until November 11. According to Hungarian data, from October 23, 1956 to January 1957 (until separate armed clashes between the rebels and the Hungarian authorities and Soviet troops ceased), 2,502 people were killed on the Hungarian side and 19,226 people were injured55. On the Soviet side, 720 people were killed, died of wounds or went missing, and 1,540 people were wounded56 .

The events in Hungary darkened Soviet-Hungarian relations for a long time and became for the world a symptom of trouble in the camp of the socialist countries. They added fuel to the fire of the Cold War, gave impetus to the creators of American foreign policy to intensify the activities of American intelligence services and propaganda organizations to corrupt the internal affairs states and the entire socialist community from within, using and whipping up anti-Soviet sentiments, supporting nationalist elements in these countries.

Nevertheless, despite the blunders of Soviet policy in a number of countries of the socialist camp, the authority of the Soviet Union and the attractiveness of the ideas of socialism in the zone of the national liberation movement, in the growing "third world" grew.

The desire of each of the great powers to establish (USSR, USA) or maintain (England, France) its influence in the "third world" became an actual feature of the world confrontation. The USSR, which had already created a belt of friendly states around itself, supported in every possible way the struggle of the peoples of Asia, Africa, and Latin America against the former or still remaining colonial powers, spreading the ideas of socialism in these countries.

England and France tried to keep the former colonies in their orbit, the United States sought to master these countries

as markets. These contradictions were especially clearly manifested in 1956, which was truly a year of crises.

The most important of them in the battle for the "third world" was the conflict that went down in history as the Suez crisis. In the Middle East, with the collapse of the colonial system, a "power vacuum" has formed. Therefore, the old metropolises - England and France, and the new superpowers - the USSR and the USA, rushed there.

Until the mid-1950s, Egypt, which was a protectorate of Great Britain from 1914 to 1921, having become an independent Kingdom in 1922, actually remained under the control of Britain. On October 15, 1951, Egypt terminated the 1936 treaty, under which British troops were stationed on its territory. But the British not only did not withdraw their troops, but also increased their number to 120 thousand people. The response was mass protest meetings and partisan struggle against the British occupiers .

On July 23, 1952, in Egypt, a revolutionary organization of "free officers" headed by Colonel G. A. Nasser overthrew the monarchical regime and proclaimed the country a republic. The new government led by Nasser sought to pursue an independent policy. This led to a deterioration in relations with England and exacerbated the confrontation with Israel. Despite the fact that in 1950 England, the United States and France signed an agreement prohibiting them from selling weapons to both Arab countries and Israel, Paris and Tel Aviv in 1954 entered into a secret agreement to supply Israel with the latest

French weapons58. In 1953, the United States offered President Nasser military and economic assistance to Egypt and the replacement of British troops with NATO forces, but was refused. In an effort to extend its presence in Egypt, Great Britain signed an agreement with Egypt in 1954 to withdraw its troops within 20 months and transfer all military facilities in the country to the Nasser government. With the creation in 1955 of the Baghdad Pact (Turkey, Iraq, Iran, Pakistan, Great Britain) to Egypt

was invited to join this organization, but Cairo refused. The situation in the Middle East was getting worse. Israel and the countries of the Baghdad Pact were viewed by Egypt as a hostile environment. The people's liberation war in Algeria, the independence of Syria, Sudan, Tunisia, Morocco - all this spoke of the rapidly developing process of the collapse of the colonial system of the West. Favorable conditions were created for the expansion of Soviet influence in this region, which greatly worried the NATO leadership. Their fears were not built on sand. Since 1955, at the request of Nasser, after the West rejected his offer to supply Egypt with weapons, Moscow secretly, through Czechoslovakia, began to sell modern weapons to Egypt: tanks, aircraft, artillery, etc.59 .

In the USA, Great Britain and other Western countries, the Soviet-Egyptian action caused growing concern: they did not want to let the Russians into the Middle East, already engulfed in revolutionary ferment. President Eisenhower promised Nasser American financial assistance in the construction of the Aswan Dam. But when the Egyptian president recognized the People's Republic of China and began to buy weapons from Czechoslovakia, on July 21, 1956, the United States abandoned its promise. This put Egypt in a hopeless situation: the collapse of a grandiose project threatened with huge troubles for the country's economy. Then, 5 days later, on July 26, Nasser took an extremely daring step: he decided to nationalize the Suez Canal. At a grand rally in Alexandria the next day, he announced that the proceeds from the nationalization of the canal would go to the construction of the Aswan Dam, and announced the promise of the USSR to provide economic assistance to Egypt. (The Soviet government agreed to this in June, during the visit of Foreign Minister D. G. Shepilov to Egypt.)

Nasser's statement caused a storm in London and Paris. On July 27, British Prime Minister A. Eden sent a telegram to Eisenhower. He wrote that the West could not allow Nasser to take over Suez. He demanded not

slow joint Anglo-American actions, believing that otherwise the American-British influence in the Middle East would be "irreparably undermined." He argued that the interests of maritime states were threatened because the Egyptians did not have the technical competence necessary to operate the canal. Eden reported on the preparation in England of a plan of military action against Egypt, believing that the West should "bring Nasser to reason."

Eisenhower did not share the views of the British. He believed that "the power of a sovereign state to alienate private property in its own territory can hardly be questioned ... Nasser acted within his rights." But he was also sure of something else: "...thinking about our situation in Panama, we must not allow this action to go to Nasser just like that"60

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However, the British and French played their game. At a meeting of representatives of the United States, Great Britain and the United States at the end of July, the positions of London and Paris coincided: to nip in the bud the attempt of disobedience by Egypt in any way, not

stopping before using force. The United States urged them not to rush, hoping to receive political dividends in the Arab world through their peacekeeping. Not being a colonial empire, the United States could find understanding among the Arabs in their struggle against colonialism and ultimately squeeze out their allies-competitors in the richest oil-bearing region. Therefore, American representatives proposed to internationalize the channel, transferring its management to international jurisdiction. The discussion during the week did not lead to an agreement.

Then the former Suez Canal Company withdrew its pilots, who were guiding ocean-going ships through a narrow and difficult fairway. It was a well-calculated blow. The Egyptian government, not ready for such a turn of affairs, began to search for new pilots, but in the face of opposition from London and Paris, this task was not an easy one. Then the Soviet Union came to the aid of Egypt.
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By order of N. S. Khrushchev, the first secretary of the Central Committee of the Communist Party, pilots from the USSR were sent to Egypt. Most of them were highly qualified and could quickly master the working conditions on the Suez Canal. Pilots went to Egypt as "private individuals" hired by the administration of the canal61. With this act, the Soviet government demonstrated to the emerging "third world" its solidarity with the peoples gaining independence, and showed the West that the USSR was entering the international arena as an active participant in world politics in the "third world".

The tendency of the United States to dissociate itself from the bellicose position of Great Britain and France, the actions of the USSR to provide assistance to Egypt further increased tension in the Middle East. The governments of England and France began to prepare an intervention in Egypt. Israel joined in the development of military plans. A kind of coalition was formed, in which each of the participants pursued their own goals. England and France sought to retain all the military, political and economic benefits from owning the Suez Canal. In addition, Great Britain hoped to strengthen its shaken political influence in the Near and Middle East, and France - to punish Egypt for its active support of the national liberation struggle in Algeria. Israel's goal was to expand its territory .

The United States watched with alarm the military preparations of its allies. American intelligence agencies noted the increased intensity of the radio exchange of encrypted messages between London and Paris. Air reconnaissance reported that Israel was mobilizing, and there were up to 60 French Mister-class fighter-bombers at Israeli air bases. Upon learning of this, President Eisenhower was furious: not only did the French, despite the agreement on the ban on the sale of weapons to the countries of the Middle East, obtained permission from the United States to sell 24 "Misters" to Israel, they are still behind the back of the United States together
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then 24 delivered 60 such aircraft to Israel. Through Secretary of State D. Dulles, he conveyed to Israeli Prime Minister Ben-Gurion that in the long term, Israel's aggression "cannot but lead to a catastrophe and those of his friends who he still has in the world will not be able to help him in any way, no matter how strong they are." were "63 .

Meanwhile, England, France and Israel launched a systematic preparation for aggression against Egypt. In early September, it was decided to transfer French units from Algiers to Malta: from here it was closer for them to operate in Egypt. Israel was supposed to launch the attack, which was guaranteed financial and military-technical assistance. To prepare for

new war, Israel in 1956 contributed half of its own budget64 . At the same time, NATO states supplied Israel with tanks, aircraft, guns and small arms. In January 1956, 100 tanks were received from England, in February Canada supplied ammunition worth $30,000, and in April the first of 100 ordered French Mister aircraft began to arrive . Hundreds of Israeli officers of all branches of the military were trained in NATO countries. In addition, officer cadres were trained at the General Staff Academy, opened in Israel in 195466 .

For the war against Egypt in 1956, Israel mobilized 150,000 people. His ground forces were armed with 400 tanks, more than 400 guns, and about 500 armored personnel carriers. The naval force, augmented by three frigates supplied by Canada and two destroyers from England, had 30 warships. The Air Force consisted of 360 aircraft, including old American and British aircraft equipped with new weapons. In general, Israel possessed significant military power.

On October 16, at an Anglo-French meeting in Paris, the final decision was made to attack Egypt. On October 23, 1956, the general staffs of England, France and Israel completed the development of a joint action plan. Joint Anglo-French Headquarters,

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who led the invasion, was stationed in Cyprus; the Israeli General Staff exercised leadership from its territory.
In a joint air-land-sea operation, they had to take
participation of 25 thousand British and the same number of French. Taking into account the naval and auxiliary forces, the number of the Anglo-French expeditionary force exceeded 100 thousand people. In total, 229 thousand soldiers and officers of the three countries, 650 aircraft and over 130 warships were concentrated for the intervention68. The Egyptian army by that time had significant weapons acquired both in the West and in the socialist countries. However, Egypt did not have sufficient military potential to ensure the defense of the state while simultaneously attacking it on land, from air and sea. With significant human resources, the country did not have the opportunity to prepare a combat-ready army, since a large proportion of the draft contingent turned out to be unfit for military service due to illness, illiteracy, and also due to a lack of weapons. In addition, before the start of the aggression, the Egyptian armed forces were in the process of reorganization, and the new military equipment received from the socialist countries had not yet been fully mastered. In the ranks of the ground forces there were 75 thousand, in the Air Force - 11 thousand people. The Egyptian National Guard of 100,000 did not receive sufficient training and did not have the necessary weapons. In total, the ground forces were armed with about 600 tanks and self-propelled artillery guns of various types, 400 field guns, 200 anti-aircraft guns and 200 armored personnel carriers69. Before the outbreak of hostilities, some of these tanks and guns were located mainly at the bases, and not in the troops. The Egyptian Air Force included about 15 squadrons of British and Soviet-made aircraft, but before the start of the aggression, not all Soviet aircraft were put into service. In general, out of 128 modern aircraft, only 4270 were in combat readiness.

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Egypt could oppose the interchangeable fleets of the USA and England with only 4 destroyers, 7 frigates and several auxiliary ships.

The tripartite aggression against Egypt proceeded in two stages. At the first stage, Israel carried out an offensive in the Sinai Peninsula, and England and

France - air raids on Egypt; on the second, England and France planned to land amphibious and airborne assault forces in the Suez Canal zone. The Israeli offensive was to unfold simultaneously in three directions: along the Mediterranean coast with an auxiliary maneuver to encircle and destroy Egyptian troops in the Gaza region; through the Mitla Pass to Suez and Ismailia, and to a limited extent along the coasts of the Gulf of Suez and the Gulf of Aqaba.

On October 29, Israeli troops invaded Egypt. Israel sought to inflict a military defeat on Egypt that could lead to the fall of the Nasser regime; destroy the bases of Palestinian militants in the Sinai; force Egypt to conclude a peace treaty on favorable terms for Tel Aviv. The Israeli grouping of troops created for the invasion included 10 brigades (about 100 thousand people), 200 tanks, about 600 guns and mortars, about 150 combat aircraft and up to 20 warships71. The main goal of the group was to seize the Gaza Strip on the Sinai Peninsula, as well as to enter and consolidate on the coast of the Gulf of Aqaba. Great importance was attached to interaction with the Anglo-French troops, to agreeing with them on the timing of military operations72 .

Egypt fielded two rifle divisions against Israel, as well as local self-defense units, which did not represent any serious fighting force. Some of the reserves were deployed to the most threatened areas. The fighting on the first day of aggression was carried out mainly in the southern, Suez, direction. Troops of the Israeli attack group "Center" with the support of tanks captured a number of Egyptian settlements. In other directions they moved more slowly out of 297

for the fact that the technique got stuck in the sand. After Israeli airborne troops landed in the area of the Mitla Pass, French planes began to deliver military equipment, ammunition, fuel, food and water to him. 60 French jet fighters with French crews deployed to Israel the day before the start of the invasion supported the actions of the Israeli ground forces. At the same time, ships of the British and French navies were moving towards the Egyptian shores73 .

On October 30, England and France, playing the role of "peacekeepers", presented Egypt and Israel with an ultimatum demanding that both sides withdraw their troops 10 miles (16 kilometers) from the Suez Canal. At the same time, they demanded Nasser's consent to the occupation (of course "temporary") of Port Said, Ismailia and Suez. This ultimatum was a demonstrative gesture aimed at the world community. It was directed only against Egypt, since by this time the Israeli troops were still 50 kilometers from Suez. In addition, the ultimatum gave the parties a very tough time to think about the answer: 12 hours - until 4.30.31 October GMT74. (This was reminiscent of Hitler's ultimatum to Poland on August 30, 1939, when the Poles simply did not have time to comply with Germany's demands on time.) Reporting to the US President about this ultimatum, Secretary of State D. F. Dulles noted that "this document in its rudeness and cruelty surpasses everything he ever witnessed." US Representative to the United Nations G. Lodge said at the UN General Assembly that the US intends to submit a resolution calling for the cessation of hostilities between Israel and Egypt, the withdrawal of the Israeli army to the original border and the renunciation of all UN members from the use of force, as well as their participation in the embargo on trade with Israel until the troops are withdrawn. This message was met with prolonged applause. Countries

"Third World" were enthusiastic about the intentions of the United States to support

Egypt, rebelling against the powers that have the closest ties to Washington. The rating of the USA in the world public opinion jumped up sharply. Eisenhower's appeal to the conflicting parties and peoples of the world further raised the authority of the United States. The President stated that Britain and France did not consult with the United States when deciding on armed intervention, that the United States would not take part in the conflict, that their goal was to stop the war that had broken out in the Middle East. True, he immediately made the reservation that such a position of the United States would not affect the ties of friendship that bind America with Britain and France, as well as with other partners in NATO76 .

The Soviet government, preoccupied with the events in Hungary, came out on November 1 with a stereotyped statement from the Foreign Ministry. Only later, after reading Eisenhower's statement and the responses to it in the world, N. S. Khrushchev realized that the Americans had seized the initiative, acting as peacekeepers and not tying the hands of their allies. The Soviet leader understood that it was necessary to take some important step, worthy of a mighty, but peace-loving power, however, shackled by the Hungarian uprising, he decided to wait a few days77 .
Meanwhile, the events around Egypt were becoming more and more ominous. On October 31, Israeli troops reached the approaches to the canal in the Suez region. On the same day, Anglo-French aviation joined the fighting. Its task was to maintain air supremacy, as well as massive raids on Egyptian cities and military installations. Port Said, Cairo, Ismailia, Suez, Alexandria and many airfields were bombed. The destruction of half of the Egyptian airfields as a result of raids and the disabling of up to 140 combat aircraft of the Egyptian Air Force made it possible for the aggressors to gain air supremacy and carry out unhindered air and sea landings . Naval artillery bombarded coastal fortifications. The Egyptian command still managed to save part of the plane 299

Commodity of Soviet production. Soviet and Czechoslovak pilots managed to overtake all the combat-ready MIG-15, MIG-17 and IL-28 to safe airfields in Saudi Arabia. Attempts by the Egyptian aviation to counteract the air enemy and the ground forces of Israel did not bring success: the pilots of the Egyptian Air Force did not have the experience of modern air warfare.

Given the threat of an Anglo-French landing, the Egyptian command withdrew its troops from the Sinai Peninsula and deployed them in the Suez Canal zone. On November 1, Israeli troops managed to break through the Egyptian defenses along the Mediterranean coast. On November 2, with the support of aviation and French naval artillery, they captured the city of Gaza and the next day were 15-20 kilometers from the Suez Canal. On November 5, the Israelis captured a key point at the entrance to the Gulf of Aqaba - Sharm el-Sheikh, as well as the islands of Tiran and Sanafir belonging to Saudi Arabia. The entire Sinai Peninsula was in the hands of Israel.

In the battles for Sinai, the Egyptians suffered heavy losses, but the calculation of the aggressors that defeats at the front would lead to the overthrow of the Nasser government did not materialize. Then England and France decided to launch an invasion on their own. It began with airborne assaults carried out by the Anglo-French troops stationed in Cyprus. On November 5, with air support, the British parachute brigade captured Port Said, and the French brigades captured Port Fuad. On the night of November 6, an amphibious landing began on the captured bridgeheads, supported by 122 warships that arrived from Malta and Toulon, among which were several

battleships, 4 aircraft carriers and 2 helicopter carriers. The combined Anglo-French invasion force included 80,000 men, over 430 tanks, 520 guns and mortars. They were supported by about 600 aircraft79 .
Slowly moving south along the canal, the Anglo-French troops were preparing to attack Cairo. A distinctive feature of the operation was the wide
use

calling of the airborne troops. The lack of air defenses among the Egyptians allowed the enemy to use aircraft at low speeds and to carry out landings from low altitudes. Helicopters were used for the first time for the transfer of marines.

Military operations were accompanied by decisive political actions. On November 1, Egypt severed diplomatic relations with Britain and France. Syria followed suit and placed its armed forces under Egyptian command. The Syrians blew up the oil pipelines that ran from Iraq through Syria to the sea. On November 3 A. Eden rejected the call of the UN Security Council for a ceasefire. The next day, Eisenhower, having learned about the position of Great Britain and that the Anglo-French squadron, which had left the ports of Cyprus, was approaching the Egyptian coast, suggested to Eden that the ships be returned to Cyprus. Eden replied: "...If we turn back now, the entire Middle East will be engulfed in flames... We cannot allow a military vacuum at a time when UN forces are only just being formed."80 It became clear to Washington that Britain and France were determined to achieve their goals.

In Moscow these days they were racking their brains on how to help Nasser. In October, the Soviet government could not pay sufficient attention to the events taking place in the Middle East. In those days, the socialist world was shaken by anti-Soviet demonstrations in Poland and an uprising in Hungary, where it came to
armed conflict, in which Soviet troops also took part. These events riveted the main attention of the Soviet leaders. But in late October - early November, the Soviet Union managed to politically settle the issue with the Polish government, and the uprising in Hungary was suppressed by the new Hungarian government of J. Kadar with the help of Soviet troops. Now Khrushchev could switch to Egypt. The non-intervention declared by the Americans made it easier for the Soviet leader to make a decision: now that the Americans had dissociated themselves from the Anglo-French

tsuzsky adventure, it was possible to make a statement in which, along with a call to stop the aggression, there would be a threat to use force otherwise. The American position ruled out a direct challenge to the United States on this issue.

But another question arose: how could one strengthen his threat so that it sounded convincing for London and Paris. Conducted a number of political actions. Minister of Foreign Affairs D. G. Shepilov turned to the Chairman of the Security Council Jalal Abdokh with a proposal to present an ultimatum to the aggressors demanding to stop hostilities within 12 hours, and the USSR expressed its readiness to place its air and naval forces at the disposal of the UN. Protest demonstrations were held in Moscow outside the embassies of Great Britain, France and Israel. The Soviet ambassador in Tel Aviv left Israel. But what better way to reinforce the determination of the USSR to provide effective assistance? And then Khrushchev decided to apply the technique, which he then repeatedly used in the event of military-political crises and armed conflicts. He decided to threaten with nuclear missile strikes on London and Paris in order to force the British and French governments to end the war in Egypt.

At that time, the USSR had several R-5 missiles with a range of 1200 kilometers, which made it possible to hit targets in England and France from the territory of the USSR and its European allies. They were tested at the Kapustin Yar test site. However, there were no combat-ready, let alone missiles of this class deployed in combat positions81. But during the visit of the Soviet government delegation headed by Bulganin and Khrushchev to London in the spring of 1956. The latter talked a lot about the creation in the Soviet Union of missiles with a range reaching England. Then it seemed to make an impression. Moreover, Khrushchev spoke directly about the transition of the USSR from mass armies to nuclear missile weapons. In addition, it was known in Moscow that Western intelligence knew about the missile launches.

ket in Kapustin Yar, but, as the Kremlin believed, they did not know the degree of readiness of missile weapons for combat use. Khrushchev decided to play on this.

On November 5, an appeal was published in Moscow by Soviet Premier N. A. Bulganin to the leaders of England, France and Israel - Anthony Eden, Guy Mollet and Ben-Gurion. The tone of the address was harsh. The Soviet Union warned that a local conflict could escalate into a world war, and suggested that the United States and other UN member states use their armed forces together to stop the bloodshed. The Soviet Union declared its "determination by the use of force to crush the aggressors and restore peace" in the Middle East. The note sent to the UK read, in part:

"In what position would England herself find herself if she were attacked by stronger states possessing all types of modern fighter weapons? use other means, such as rocket technology. If rocket weapons were used against England or France, you would probably call it a barbaric act .

This message produced the impression of a bombshell in London and Paris. Guy Mollet was lifted out of bed. After reading the Soviet ultimatum, the French prime minister rushed to call London. There was the same reaction. All night long consultations were going on by telephone between Eden and Guy Mollet: they were trying to figure out how real the threat was. After the previous US declaration of non-intervention, Britain and France remained face to face with the USSR. Eden recalled how Khrushchev, during a visit to London in the spring, boasted of Soviet missile power. On the morning of November 6, both governments announced a cease-fire from 0000 hours on November 783 . Moscow rejoiced: the bluff was a success. But the Kremlin did not know that intensive consultations between London and Washington were going on in the same days. The point is that Bull

Ganin also sent a letter to Eisenhower with a proposal that the USSR and the USA join forces and jointly put an end to hostilities:

"The Soviet government is addressing the government of the United States with a proposal to stop aggression and stop further bloodshed. The United States has a strong navy and powerful air force in the Mediterranean. The Soviet Union has a strong navy and a powerful air force. The joint and immediate use of these means by the United States and the Soviet Union would be a reliable guarantee for the cessation of aggression ... If this war is not stopped, then there is a danger that it may escalate into a third world war .

This Soviet proposal deliberately, not without intent, exaggerated the capabilities of the Soviet fleet and aviation. The thought of aiming at

Khrushchev had Soviet troops, and above all airborne units, in the Middle East, but USSR Minister of Defense G.K. Zhukov reported to the government that the General Staff had worked out the option of airborne assault and had come to disappointing conclusions. Even if Turkey and Iran do not prevent the overflight of aircraft, transfer a sufficient number of troops and weapons, it will not be possible to arrange their supply due to the lack of aircraft. In a clash with the expeditionary forces of the Allies, which are provided with everything necessary, and with the dominance of the British and French fleets and aviation in the Mediterranean, the Soviet airborne units would be doomed to defeat .

But Washington didn't know about it. At a meeting at the White House on November 5, CIA Director Allen Dulles said that according to available intelligence, the Soviets had promised the Egyptians "to do something" in the Middle East. He assumed that the USSR would send military aviation to Syria. It was decided to reject the proposal of the Soviet premier. The President instructed FBI Director Hoover to issue a statement warning

tell the Russians that if they try to send troops to the Middle East, the US will counter it with force.

On November 6, Eisenhower ordered Dulles to conduct reconnaissance flights by US aircraft over Syria and Israel, "avoiding, however, flights over Russia." Their task was to establish the presence of Soviet troops or aircraft at bases in Syria. If they were discovered, the president believed, "the British and French would have a reason to destroy them." He also asked if the US Navy forces in the Mediterranean had nuclear anti-submarine weapons.

“These guys,” the president said of the Soviet leadership, “are both furious and fearful at the same time... This combination is the most dangerous state of mind... And if these guys do anything, we have to hit them, and if it is necessary to hit everything that we have in the basket. He believed that Bulganin's letter was generated by the fear of the Russians. They, according to Eisenhower, feared that the events in Hungary would lead to the collapse of the Warsaw Pact, which was created a year ago. In this regard, Moscow seeks to demonstrate its strength in order to show the West its high military capabilities, to keep it from the temptation to interfere in the affairs of the Warsaw Pact countries. At the same time, he declared that if the Soviets attacked the French and British, then "we will enter the war and we will have the right to take military action." But already on the same day he was informed that, according to intelligence, there was no Soviet Air Force either at the air bases in Syria or on the way to Egypt. This, of course, reduced the threat of an expansion of the conflict, but nevertheless, measures were taken in the United States to increase combat readiness: servicemen who were on vacation were recalled to their units86 .

In a telephone conversation between Eisenhower and Eden on November 6, the British Prime Minister announced that he had just announced Britain's readiness to agree to a ceasefire. "I can't express how glad we are,"87 the president - So commented on the news.

In the meantime, Moscow was anxiously watching developments in the Middle East. Since the idea of an airborne landing fell away, it remained to rely on Bulganin's formidable statement. The Kremlin did not yet know about Eden's last telephone conversation with Eisenhower. But soon news arrived about Eden's speech in the House of Commons on November 6, in which he declared that the British troops had fulfilled their tasks and from zero o'clock on November 7 they were ceasing military operations in Egypt. And although the fighting in Port Said continued, it became clear that the war was coming to an end. On November 8, the shooting stopped. Israel has promised to withdraw its troops from the Sinai Peninsula and the Gaza Strip. By the end of November

UN forces took up positions on the Egyptian-Israeli border. Anglo-French troops were withdrawn from Egypt in December 1956, and Israeli troops in March 1957. Thus ended the Suez Crisis. The Kremlin regarded this as a success of its policy.

Today, many years later, this crisis attracts the attention of historians not by its military aspect (it is quite typical for many local military conflicts of that time), but by its political aspect. One of the most important directions of that time was the rivalry for the possession of "spheres of interest" in the emerging "third world".

In 1957-1964, the leaders of the USSR visited India, Indonesia, Burma, Afghanistan, Iran and other countries. The leaders of India, Indonesia, Ghana, Guinea, Mali, Sudan, Somalia, Senegal, Laos, Cambodia and a number of other states visited the Soviet Union. More than 20 agreements on cooperation and provision of loans to Asian, African and Latin American countries were signed, including India, Indonesia, Burma, Nepal, Ceylon, Afghanistan, UAR, Iraq, Yemen, Ethiopia, Ghana, Guinea, Mali. The amount of assistance provided was quite significant: the OAR covered up to 50 percent of appropriations for economic development at its expense, while India covered 15 percent during the implementation of the second five-year plan.

The intensification of contacts between the USSR and the liberated countries, the support of their national-patriotic forces caused a negative reaction in the Western countries. Soviet foreign policy was perceived (some statements by Khrushchev and other Soviet leaders gave grounds for this) as an attempt to spread the Soviet ideological system to the whole world, to cut off the developed states of the West from markets and sources of raw materials.

As a result, the West stepped up military pressure on the USSR. After the crisis of 1956, the NATO countries proclaimed the "doctrine of interdependence", heading for a closer coordination of their actions.

The readiness of the United States and its allies to oppose any pro-communist changes in countries where there was no "Soviet influence" has increased significantly, to try to overthrow those governments that pursued a line towards an alliance with the USSR.

Already in 1957, the United States proclaimed the "Eisenhower Doctrine", according to which an "influence vacuum" formed in the Near and Middle East as a result of the weakening of the positions of Britain and France. However, attempts by the United States and Great Britain in 1957-1958 to fill this "vacuum" and to impose governments pleasing to the West on Syria and Iraq met with resolute opposition from the USSR. The failures of US policy in the Middle East prompted the West to take a decision at the NATO Council session in December 1957 to deploy nuclear weapons bases and missile launch sites on the territory of the countries participating in the bloc. After the Caribbean crisis, the United States adopted a land-based strategic missile program. Their number increased from 294 to 1054 between 1962 and 1967.

The Soviet Union made no secret of its sympathies for the national liberation zone and supported the forces that took the most radical, anti-imperialist positions. The program of the CPSU, adopted by its 21st Congress, put forward the proposition that the liberated countries should face the best of alternatives .

native: moving along the path of non-capitalist development as "the path of peoples to freedom and happiness", when it is possible "during the life of one generation" to turn a backward country into an industrial one, to eradicate social inequality,

ensure a high material and cultural standard of living for the working class and all working people. At the same time, it was emphasized that the USSR and other socialist countries would help the developing countries in every possible way, provide them with support, including arms.
But the United States also intended to achieve its goals by political means, supported by forceful pressure. "If the use of force becomes impossible, diplomacy may also lose its effectiveness," wrote the famous American political scientist H. Kissinger89. But for this it was necessary to have such military power that would make a frightening impression not only on the countries of the "third world", but also on the great powers. The strategy of "massive retaliation" adopted in the United States in 1954 provided for the waging of a global nuclear war against the USSR and its allies "by means and in areas of one's own choice", and was a means of deterring, above all, the Soviet Union89. The United States had a force capable of actually delivering a crushing blow: about 1,200 strategic bombers with atomic bombs. The USSR also possessed nuclear weapons, but did not have means of delivery to the territory of the main NATO power - the United States. The most intensive measures were taken to catch up with the United States in terms of the latest aviation and nuclear missile weapons. But this took years, and time did not wait. And then Khrushchev decided to again use the tactics of military-political bluff. The idea was to create an exaggerated impression of the air and nuclear power of the Soviet Armed Forces with frightening propaganda, combined with a demonstration of the very small number of long-range bombers and, after 1957, strategic missiles. Subsequently, this idea was accurately reflected by H. Kissinger. He wrote: "...what a potential aggressor believes is more significant,

than what is objective truth."90 In 1955, Khrushchev "scared" the Americans with Tu-95 bombers, demonstrating at an air parade in Moscow literally all aircraft of this type available in the country (less than 10). Tu-95 capable of striking the U.S. During the Suez crisis, he uses this technique against England and France, frightening them with missiles that are not yet in service with the Soviet Army, later claims that the USSR makes missiles "like sausages", although they were few then.

4. USSR: breakthrough into space

The political effect of the Soviet atomic threat during the Suez crisis sunk into Khrushchev's soul. He became an ardent supporter of the rapid adoption by the Soviet Army and Navy of strategic nuclear missile weapons; overcoming the resistance of the top generals, the majority of whom were distrustful of missiles, he spares no funds for their development. Target -
to intimidate America, to drive it away from the temptation of an air-atomic strike on the USSR.
But for this it is not enough to have only medium-range missiles, even if they can operate for 2,000-4,000 kilometers. What was needed was an intercontinental missile (ICR) capable of hitting targets in North America at a distance of 8,000 kilometers or more. In addition, it had to carry a sufficiently powerful nuclear charge. The creation of an intercontinental rocket with a thermonuclear head, developed by the group of Andrei Dmitrievich Sakharov, began in 1953. "It is significant that the weight of the charge, and hence the entire scale of the rocket, was adopted on the basis of my memorandum. This

predetermined the work of the entire huge design and production organization for many years," Sakharov wrote. - It was this rocket that launched the first artificial Earth satellite into orbit in 1957.

and a spaceship with Yuri Gagarin on board in 1961"91. The name of this rocket is R-7. It was on it that the design bureau of Sergei Pavlovich Korolev worked since the mid-50s.

But already then, in the mid-1950s, the royal R-5M rocket for the first time in history carried a warhead with an atomic charge through space, flying 1,200 kilometers, and hit a target in the Kara-Kum desert, not far from the Aral Sea92 . However, the R-7 became the main direction of work for Korolev and his design bureau at that time. Having captured all the thoughts of the developers, it became the meaning of their lives.

"Seven" with a nuclear charge of a number of megatons unknown to us so far in our minds seemed to be some kind of beautiful goddess who will protect and cover the country from a terrible transatlantic enemy, "writes one of the creators of this rocket B. E. Chertok93. To test the R-7 in In the desert of Kazakhstan, near Tyuratam station, a new missile range was opened in early 1957, which later went down in history under the name "Baikonur". so that it does not go beyond the USSR, it was necessary to launch rockets at a distance of not 8000, but 6314 kilometers, so that the rocket fell in Kamchatka, and not in the Pacific Ocean . , Yelizovo. Several experimental rockets R-7 were manufactured, each of which had its own number. On May 15, rocket No. 5 launched, but unsuccessfully. Controlled flight lasted 98 seconds. Then a fire started on one of the engines on the rocket, and at the 103rd second it was eliminated on command from the ground.

Two subsequent launches also failed: June 6 and July 12. August 19 only rocket scientists achieved significant success: the rocket reached the target area. But ... the warhead did not fall to the ground, it burned out 20 seconds before hitting the target. Nevertheless, on August 27, TASS announced the creation in the USSR of an intercontinental ballistic missile and its

successful test. The message specifically emphasized that now the Armed Forces of the Soviet Union are able to reach any point on the globe without using aviation, which is vulnerable to air defense systems. That report spoke of the successful completion of a series of tests of nuclear and thermonuclear charges95 .

The Americans, the Pentagon and the CIA, who at that time were engaged in intensive testing of intercontinental ballistic missiles, did not believe the TASS report. They admitted that the tests of the Soviet ICBM were successful (they did not know that the warhead did not reach the ground, but the information received from reconnaissance flights confirmed that the USSR was close to creating an ICBM), but did not believe that such a missile was already adapted to deliver a hydrogen charge 96. However, intelligence data showed that the Russian missile program was being carried out very successfully.

So it was. The next test - September 7, 1957 - showed that, although the head part collapsed again, before reaching the ground, its fragments fell in the target area. According to them, it was determined that the flight relative to the aiming point did not exceed 3 kilometers, and the deviation did not exceed 1 kilometer97. It was necessary to bring the R-7 to such a condition that the warhead accurately hit the target. But it took time. And then it was decided to fill the gap and not

to irritate Khrushchev, who was mainly worried not only by the military, but also by the political, propaganda effect of the Soviet MKRs, to launch artificial Earth satellites (AES). The satellite did not require landing at a precisely specified place on the earth's surface, the power of the rocket was sufficient to throw into space into orbit with an apogee of up to 1000 kilometers a device weighing up to 80 kilograms, while the Americans planned to launch into space the Avangard satellite weighing 10-15 kilograms98. So the Soviet Union came close to launching satellites, ahead of the Americans in the most important area of scientific and technological progress - the mastery of outer space.

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During that period, the USSR also achieved major successes in competition with the United States in testing nuclear charges. In September 1955, a new Soviet nuclear test site, on Novaya Zemlya, went into operation. On September 21 of that year, the first underwater nuclear explosion in the USSR was carried out there. The test site was also adapted for nuclear tests in the atmosphere. But the Americans also conducted intense nuclear tests, and with a slightly greater intensity than the Soviet Union. So, in 1958, the United States carried out about 80 nuclear explosions, and the USSR - 72. "The record for the power of the exploded charge also belonged to the United States: 15 mgt (Bikini Atoll, 1954).

Nevertheless, the Soviet Union repeatedly spoke at international forums with proposals to stop nuclear testing. In January 1960, the Supreme Soviet of the USSR decided to unilaterally stop testing atomic and hydrogen weapons and declared its readiness not to resume them if the Western powers follow the example of the Soviet Union. But the West did not respond to this call. In January 1961, the US continued nuclear testing. Then the Soviet Union broke the moratorium and began preparations for a new series of nuclear explosions. The most powerful were carried out at the Novozomelsky test site in October 1961. A thermonuclear bomb of high power - 30 megatons was detonated in the air on October 23. The effect was impressive: there was huge destruction in the affected area, some residential buildings and barracks in the northern part of the Novaya Zemlya archipelago were damaged (people were evacuated in advance). On the same days, underwater and surface explosions were made, but of much lower power. All tests were successful100 . Then they began to prepare tests of "superbombs".

All precautions have been taken. Local authorities and military garrisons on the archipelago and the mainland received appropriate warnings. Reindeer herds were driven into the depths of the Arkhangelsk region, for the duration of the test, flights of aircraft and vehicles were prohibited .

ships at sea. Early in the morning on October 30, the Tu-95 carrier aircraft took off. A "superbomb" with a capacity of 58 megatons was suspended from below on a special mount to its fuselage (it did not fit in the bomb bay). The aircraft entered the assigned area at an altitude of 12 kilometers. The explosion was programmed at an altitude of 5-6 kilometers. To reduce the impact of the light pulse, the TU-95 was painted white with a special paint. Before dropping the bomb, the crew broadcast false signals in order to mislead the air and sea reconnaissance of NATO countries. And at 8.30 am, the "superbomb" dropped on a special parachute reached a predetermined height - an explosion occurred.

Here is how the participant of these tests, General
Lieutenant G. G. Kudryavtsev:

“Almost unexpectedly for ourselves, we saw a bright flash of light. And despite the great distance from the explosion site (250 kilometers), there were

literally blinded. Soon we felt the heat, as if someone nearby had opened the damper of a powerful fire-breathing furnace. The thermal effect was much stronger than what we had to experience on October 23rd.

The bubbling fireball quickly rose upwards. He grew before our eyes. Flashes continued inside him for several seconds. The slight mist that had enveloped Belushya and Rogachevo that morning immediately evaporated. Communication with the ships, zones, the mainland, the carrier aircraft, and even with the Il-14, from which the explosion was observed by Minister Slavsky and Marshal Moskalenko, was also instantly interrupted. Disruption of communication was also noted after other explosions of nuclear bombs, but such a sudden and prolonged (more than an hour) had never happened before.

The fireball "swelled", rising up. But because of the mountains, in the area of Matochkina Shara, a pillar of dust grew, taking on gigantic dimensions. He seemed to be trying to reunite with the red-hot ball, but the distance between them quickly increased. A ball with a nuclear cloud, according to experts, rose to a height of 70 kilometers. The cloud was carried away, like a dust column, to the north, which, accordingly, was predicted by scientists. A few minutes before us

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a shock wave came, and a little earlier - a seismic one. We felt the earth tremble under our feet, as if alive. A little later, there was a strong thunderous peal of an explosion, and then we heard sounds reflected from the Novaya Zemlya mountains. Soon the phone began to receive reports of the results of the explosion. An hour later, radio contact was restored. From *the carrier aircraft they reported that the task was completed, they had no damage, but they were "greatly shaken"101 .*

The Il-14 experienced the impact of the air wave, although it was at a distance of 200 kilometers from the explosion site. There were no casualties at the training ground and ships. However, in the northern zone, within a radius of 100 kilometers, doors and window frames were knocked out in houses, and the air defense radar reflector failed. The explosion of the "superbomb" was visible on the islands of Vaigach and Kolguev and on the northern coast of the mainland. On Dixon (700 kilometers from the explosion site), a shock wave was clearly felt, window panes were broken in some houses.

The tests of the Soviet "superbomb" had a wide resonance in the world, but did not stop the nuclear race. At the same time, the United States and NATO understood that the Soviet Union, not following in the wake of the United States, was going its own way, responding adequately, but not identically, but, so to speak, asymmetrically to the challenges of the West.

American strategists noted that the USSR was slightly ahead of them in testing nuclear weapons and creating some powerful strategic missiles, but only in tests! It was still far from mass production and deployment of missiles in positions. And the rivalry pushed both superpowers to further confrontation.

The arms race was on the rise. It was carried out before, but the missile threat in the statement of the Soviet government during the days of the Suez crisis, the R-7 tests and the "superbomb" gave a new impetus to the build-up of missile arsenals by both sides.

On October 4, 1957, a reception was held at the Soviet embassy in Washington for Soviet and American

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scientists participating in joint negotiations on holding the International Geophysical Year.

In the midst of the reception, Dr. Berkner, chairman of the US National Committee for the International Geophysical Year, was urgently called to the telephone. A few minutes later he hurriedly ran into the hall and clapped his hands: “Please attention, gentlemen! Ladies and gentlemen! Now above us, on

at an altitude of 900 kilometers, a Soviet artificial Earth satellite is flying by!

It is difficult to imagine the impression made by his words. At first, everyone seemed to be numb. "Like a shock after a bomb explosion!" — exclaimed one of those present. Having recovered, the guests rushed to the Soviet scientists: everyone wanted to get information from the representatives of the country in which the great miracle was born - the first satellite of the Earth. The entire press in Washington was excited. American newspapers in October 1957 were full of big headlines: "Amazing news", "Moscow's triumph".

The New York Times wrote: “It is already clear that October 4, 1957 will forever go down in the annals of history as the day of one of the greatest achievements of mankind ... This specific symbol of the future liberation of mankind from the power of the forces that chained it to the Earth, created and launched by Soviet scientists and technical specialists. All mankind should be grateful to them..."102

Less than a month later, the second Soviet satellite went up into space. Its weight increased more than six times and exceeded 500 kilograms. On board the satellite was a living creature - the dog Laika. It has become clear to the whole world what gigantic strides the Soviet Union is making in the peaceful exploration of outer space. “The launch by the Soviet Union of two artificial satellites of the Earth,” wrote then the well-known American scientist R. Stebbins, “...was a major turning point in international relations ...”, caused “serious doubts about the adequacy of the military, political and economic preparations for which behind

Western powers have hitherto relied on."103 "Soviet satellites," wrote the American military expert Professor B. Brody, "dealt a blow to American complacency by showing for the first time that the Russians are capable of surpassing us in technical achievements of great military significance." 104

The strategy of "massive retaliation", based on a sudden strike by strategic aviation and assuming the advantages of the United States over the USSR in delivery vehicles (over 1,500 B-47 and B-52 strategic bombers), turned out to be untenable. The launch of ballistic missiles in the USSR showed that the invulnerability of the US territory has become an irretrievable past, and strategic aviation as a means of delivering nuclear bombs to the target has lost its former paramount importance, since in the event of a sudden attack on the USSR by strategic aviation forces, a retaliatory nuclear missile strike overtook the aggressor before his bombers reached their target.

Indeed, the testing of the first Soviet intercontinental missiles, the launching of artificial Earth satellites - everything indicated that powerful, fundamentally new means of armed struggle had appeared in the Union. And this meant that the Pentagon's plan for an air-nuclear war against the USSR could not be carried out with impunity: the aggressor would immediately receive a devastating retaliatory nuclear missile strike. It was an adequate, but asymmetric, purely personal response to the challenge of Washington, which in the 1950s based its entire strategy on air-nuclear power. By creating a huge, costly armada of strategic bombers, squeezing the ring of air bases around the USSR, the Pentagon believed that, in developing response measures, the Soviet Union would follow the same path (the 1955 air show in Moscow seemed to confirm this). American strategists expected that in the costly competition in the field of strategic aviation, the Soviet Union would always be in the role of catching up, and the burden of spending on creating a huge

fleet of strategic bombers will force the USSR to constantly increase

military budget and thereby reduce spending on the civilian sectors of the country's economy, reduce the standard of living of the population of the USSR.

However, the Soviet Union then took a different, less expensive, but more effective path. Intercontinental ballistic missiles were more formidable, reliable and faster weapons than strategic bombers. Moreover, they did not require extremely expensive overseas bases, because they operated from the territory of the country itself. This is what made American strategic aviation a weapon of yesterday.

Although the information available at the CIA and the Pentagon testified that the Soviet Union did not seek "superiority" over the United States in nuclear missile weapons, but only wanted to ensure the possibility of an adequate effective retaliatory strike in the context of the arms race unleashed by the NATO countries, and above all the United States , and protect yourself from air-nuclear aggression. In the United States, a propaganda campaign about America's "missile gap" was gaining momentum. Things went so far that an "investigation" of the reasons for the US missile lag behind the USSR was carried out in Congress. But the senators who began to deal with this issue in 1959 "remained in the dark" that the intelligence information that the president and the CIA leadership had did not give any reason to think that "the Russians had begun mass production and deployment of intercontinental ballistic missiles" . Meanwhile, the CIA kept talking about the "missile danger", even claiming that the USSR was allegedly producing 15 missiles a month. The secret services, as if not knowing about the true state of affairs, made forecasts according to which the Soviet Union in 1960 could have up to 500 launchers of intercontinental ballistic missiles (ICBMs). The head of the CIA A. Dulles, speaking publicly in Congress, said that the USSR had achieved "nuclear superiority" in order to

"Threatening the United States with its intercontinental ballistic missiles with nuclear warheads, calmly engage in consolidating their positions in a number of unstable regions of the non-communist world."

In an environment of deliberately fanned anti-Soviet hysteria, the bosses of the military-industrial complex ardently advocated an all-out escalation of the arms race in order to "regain nuclear superiority", and clearly used the hype about the "missile gap" in their own selfish interests. They used the trick of the big deceit, which was formulated by one of the bosses of the largest military monopoly, General Dynamics: "People need to believe in the existence of a long-term danger." The myth of the "missile gap" was also used by John F. Kennedy, who fought for a seat in the White House. But, having come to power, his government discovered that the hyped "lagging behind" was a sham. R. McNamara, who became Minister of Defense in the 60s, spoke about this to journalists back in February 1961. And in the 80s, he frankly told the Los Angeles Times correspondent about the background of that big deception: “The 1960 missile lag was invented by those forces in the Department of Defense that ... tried to push through their own special program, in this case, the expansion of production missiles in the United States, exaggerating Soviet power"105 .

Amid cries of "missile lag," a decision is made to deploy American medium-range ballistic missiles around the world. To maintain the myth of the "threat", the administration even went so far as to organize round-the-clock duty in the air of strategic bombers, which, as it turned out later, are really a threat! - had on board 4-5 hydrogen bombs with a capacity of 24 megatons each! "Many employees in the Air Force and the Pentagon were very proud of the falsification of the missile

backlog. They said there was no other way to get enough funding to build the weapons systems needed to

maintaining our superiority, which was a real problem,"
noted the well-known public figure of the USA D. Ellsberg106 .

A frantic search for a suitable weapon began. The choice fell on the medium-range missiles "Thor" and "Jupiter", developed for the US Air Force. Measures were taken to put them into operation as soon as possible. However, it took a very long time to work before they were put into service. Suffice it to say that the Tor missile began to be developed in 1956, and on January 25, 1957, its first, and moreover, unsuccessful test launch took place. Only the fifth test in September 1957 brought a successful result. Nevertheless, at the end of the year, the rocket was put into mass production and in 1958 was put into service. This haste was caused by the desire of the Pentagon to put the Thor and Jupiter on alert as soon as possible and put them on combat duty in Western Europe .

True, Pentagon specialists were somewhat worried about the fact that when deploying medium-range missiles in European countries, part of the personnel of the missile bases, recruited from Europeans, would gain access to American missile and nuclear secrets, but the militant desire to quickly surround the Soviet Union with missile sites overcame these fears. At the same time, it was decided to study the possibility of using a medium-range missile, in particular the Jupiter, from specially equipped ships of the Liberty type. To do this, it was necessary to constantly keep on board, or even produce directly on the ship, a large amount of liquid oxygen, which serves as an oxidizer in the rocket engine. In addition, in order not to be vulnerable to submarines, it was necessary to maintain freedom of maneuver, especially in preparation for a missile launch, which was very difficult. Both the missile guidance system and the ship's navigation system required improvement. In the end, work on "Jupiter"

was discontinued, but the joint work of the army and navy on the missile guidance system led to

creation of new guidance systems, which were subsequently used in "Polaris", "Poseidons" and "Tridents" launched from nuclear submarines
boats.

By deploying Thor and Jupiter missiles (range 3,000 kilometers and 3,500 kilometers) on European bases, Washington pursued two goals: in the event of war, hit objects in the USSR in the shortest possible time and from shorter distances, and consequently, with greater accuracy; to disperse the means of a nuclear attack in order to divert more Soviet missiles to them in a retaliatory strike, substituting the European countries of NATO under it.

The placement of medium-range missiles in the European countries of NATO was proposed at a session of the NATO Council in December 1957 by US Secretary of State D. Dulles. He convinced his bloc partners that the missiles would be used only with the consent of the country in whose territory they were deployed. The session decided "to place at the disposal of the Supreme Commander of the Allied Armed Forces in Europe medium-range ballistic projectiles" and to create "stockpiles of nuclear warheads" in Europe.

But only three NATO countries went for it: England, Turkey and later Italy. As a result, in 1959-1960, four squadrons (60 launchers) of missiles "Thor" were deployed in England, two squadrons (30 launchers) "Jupiter" in Italy and one squadron (15 launchers) in Turkey.

"Jupiter". Squadrons of missiles "Thor" became part of the British Royal Air Force, and squadrons of missiles "Jupiter" had a dual subordination: the Italian and Turkish commands and the NATO command in Europe. The nuclear warheads for all these missiles remained under the jurisdiction of the American command.
Describing the purpose of the new missile bases in Europe, the American Fortune magazine wrote that "for the United States, this is a critically important feature in the worldwide system of bases, which allows our country to deploy all its nuclear strike power within the reach of the territory of the Soviet state"108 .
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This is how medium-range missiles first appeared in Europe. However, if the Americans did not classify the Thor and Jupiter missiles as strategic weapons, referring to their shorter range compared to ICBMs, then for the Soviet Union, which they were aimed at, this type of weapon was a strategic threat. In fact, being launched from starting positions in England, Italy, Turkey, missiles could hit objects in the European part of the USSR and other Warsaw Pact countries in a matter of minutes (8-12 minutes). "Thor" and "Jupiter" could only be used as a surprise first strike weapon, for which they were intended. Otherwise, they become targets themselves. The missiles were located on unprotected launch sites and required lengthy preparations for launch. So, it took at least 20 minutes to prepare for the launch of the Tor rocket. The missile squadron (15 missiles) was dispersed over five launch sites, each with three launch pads. As the American military theorist R. Osgood noted, these missiles were "virtually useless for anything other than the first strike." And consequently, the territories where they were deployed became the primary target for a retaliatory strike by the side subjected to a nuclear attack. Awareness of the danger in 1957 stopped the governments of other NATO countries from following the example of England, Italy and Turkey. What was a strategically "important arc" for the Americans had very dangerous consequences for the peoples of Western Europe.

"Washington controlled the defense, and consequently the politics and even the territory of its allies," wrote Charles de Gaulle afterwards. And he wrote not without reason. Back in 1955, officers and generals of the West German Bundeswehr, who first participated in the NATO military staff exercise Carte Blanche, were horrified by the ease with which their American colleagues planned atomic explosions on German soil. Considering the possible human losses, some of them shed tears.

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Nevertheless, at the December session of the NATO Council in 1957, US representatives succeeded in obtaining approval of the American plan to deploy stockpiles of American nuclear bombs and warheads for strategic and tactical missiles in a number of European NATO countries. These stocks were under the control of the Supreme Commander of NATO forces in Europe - an American general.

Thus, Western Europe was increasingly turning into a nuclear arsenal. Along with American missiles and aircraft, the nuclear "club" included two more European capitalist powers - England, which had nuclear and then, since 1957, thermonuclear weapons, and France, which created these weapons in 1960. Germany did not stand aside either. At the December session of the NATO Council, Directive MS-70 was adopted, which provided for the training by 1964 of 30 combat-ready divisions of NATO countries equipped with nuclear weapons. After the approval of this directive in May 1958, the West German military department began to equip the Bundeswehr with nuclear weapons carriers. Because the

NATO's plan provided for the transfer of nuclear weapons to the allies immediately with the outbreak of war, the leadership of the Bundeswehr announced that it was necessary already in peacetime to have the appropriate combat means and teams trained for their use. 150 West German military specialists were sent for training in the United States, and in November 1958, the American tactical missile "Honest John" entered service with the Bundeswehr. A division equipped with these missiles was available in each corps. A squadron of Matador cruise missiles (with a range of up to 1,000 kilometers) was formed in the German Air Force, as well as 6 battalions of Nike Hercules anti-aircraft missiles.

The most important goal of the American ruling class was to prepare for a nuclear war against the countries of the socialist community in the new, changed conditions, when the strategic invulnerability of the United States was irretrievably a thing of the past. American poly

tics and strategists sought to prevent, or at least postpone, the very possibility of the Soviet Union achieving parity in nuclear weapons. For the same purpose, the military-political leadership systematically rejected or thwarted Soviet proposals for arms control. The Pentagon was looking for ways to "reliably" contain the Soviet state. However, the fear of the increased offensive capabilities of the USSR forced the US military leadership to abandon the already obsolete strategy of "massive retaliation." Moreover, this was not a voluntary departure from the total method of achieving the goal inherent in the American state, but a forced maneuver, a new attempt to find a way out of an unusual situation for it, when it could no longer use unlimited military force to solve the tasks facing it, without risking being destroyed.

In this regard, instead of the strategy of "massive retaliation", with its stake on an unpunished nuclear attack, the strategy of "flexible response" was adopted. “Strategic doctrine,” wrote one of its creators, Chief of Staff of the US Army in the second half of the 50s, General M. Taylor, “
what I could suggest instead of a massive retaliatory strike is called a "flexible response" strategy. This name indicates that we must be able to respond to any possible challenge and act successfully in any situation .

By "any situation" it was understood that the United States, along with preparations for a global nuclear missile war, should take advantage of all other types of armed conflicts - from local wars with or without the use of tactical nuclear weapons to various incidents carried out by small military sabotage groups.

In the early 1960s, the new American administration of President John F. Kennedy completed the development of a "flexible response" military strategy. Explaining it

essence in a message to the US Congress dated March 28, 1961, Kennedy said that "US strategy must be both flexible and resolute, provide for the preparation and conduct of any wars - world or local, nuclear or conventional ..."111 Developing the idea of the President, the Secretary of Defense USA R. McNamara, in his speech on June 16, 1962, admitted that the strategic invulnerability of the United States had disappeared and their territory had become within the reach of Soviet nuclear missile weapons.

The meaning of the strategic concept of "flexible response" was to use the armed forces and means of the United States and NATO, depending on

the prevailing circumstances. To do this, the Pentagon had to have such a military machine that would provide the United States with a choice of military means of struggle in any circumstances of all kinds of confrontation with the Soviet Union. US military theorists have also changed their views on the role of the armed forces of the NATO bloc. The old NATO concept of "shield and sword" was formulated in a new way. Speaking at a session of the NATO Council in Paris in December 1962, US Secretary of Defense R. McNamara said that now NATO must "sword" armies of Western European NATO members and US troops stationed in Europe, and American strategic forces (strategic bombers and ICBMs) will become NATO's nuclear "shield"112. Thus, if in the 1950s the “shield” was conventional weapons, and the “sword” was strategic aviation carrying atomic bombs, in the 1960s they reversed their roles. It was an attempt to show the allies that their role in the plans for a future war was growing. In fact, American nuclear missiles and strategic bombers continued to be the main offensive weapons in the Pentagon's arsenal.

With the strategy of "flexible response" and in the conditions of the increased capabilities of the USSR to deliver an inevitable crushing retaliatory strike, as well as with a decrease in the ability of strategic bombers to break through air defense war against the USSR and other countries Var
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The Swedish Treaty was planned to be fought first with conventional weapons of the NATO countries, then with the use of tactical, and in a critical situation, strategic nuclear weapons. However, already in 1962, President John F. Kennedy spoke about a possible decision by the leaders of the United States not to strike the first blow if their vital interests were threatened .

The "flexible response" strategy did not rule out the use of nuclear weapons up to a general nuclear war. This strategy concealed the danger of turning every military conflict into a nuclear war and stimulated preparations for a nuclear war against the socialist countries. "The concept of flexible response does not mean, - noted Western researchers, - the abolition of
massive retaliation, which is its complement"114. "Massive retaliation" as a military-strategic concept and an instrument of diplomacy was not canceled, but only faded into the background, because the strategy of "flexible response" proceeded from the fact that in determining the forms of use of armed force in order to implement a global strategy, given the existing balance of power, a certain restraint is needed.In this regard, the role of "limited", "local" wars has increased as a means of achieving any particular goals in the struggle against the forces of socialism, the international workers' and national liberation movements in various regions The containment of communism once again determined the content of the military strategy of "flexible response" It was clearly outlined in its basic principles.

Thus, one of them - the principle of "assured destruction" - provided for the achievement of quantitative and qualitative superiority of the United States over the USSR in strategic nuclear missile and conventional weapons. This was supposed to expand the sphere of foreign policy and military-political influence of the United States and even more
change from 325
the attitude of military forces in their favor. Another principle - 2.5 wars - was to ensure such a development of the US armed forces that would enable the American ruling circles in the name of achieving

foreign policy goals of their global strategy to wage two major wars in Europe and Asia, including with the use of tactical nuclear weapons, as well as to carry out "small interventions" in Africa, the Middle East or Latin America. The principle of "forward basing" of the armed forces provided for the expansion of the global system of American strongholds. It was planned to have strategic and tactical bomber aviation, as well as nuclear submarines with missiles and interventionist troops at military bases and operational groupings of naval forces in certain areas of the maritime space. These forces were to take an active part in delivering a surprise nuclear strike against the Soviet Union or in a limited war on the periphery of the world socialist system.

A special place was given to Europe as a possible theater of military operations. It was envisaged to prepare 30 combat-ready divisions equipped with nuclear weapons as part of the bloc by 1964. The armed forces of the European NATO countries and the US troops stationed in Europe were saturated with tactical and operational-tactical missiles, tactical aircraft capable of carrying nuclear weapons, and atomic artillery. Already by the middle of 1963, NATO missile units in Europe included 2 divisions of Redstone missiles, 2 divisions of Sergeant, 8 divisions of Corporal, 3 divisions of tactical cruise missiles Lacrosse, 25 divisions of unguided missiles "Honest John". The US Air Force in Germany had 6 squadrons of Mace cruise missiles. Atomic artillery of caliber 280 and 203.2 consisted of 26 divisions.

The introduction of rocket weapons into the troops of the West German Bundeswehr was especially rapid. In 1963-1964, 3 divisions of Sergeant missiles were formed in it. Subsequently, their number doubled. Was formed

14 divisions of Honest John missiles, which in 1966-1967 were replaced by American Lance guided missiles with a range of up to 75 kilometers. All of these types of missiles could carry nuclear weapons. Yes, this was provided for by the "strategic principle" of the Bundeswehr. The then Minister of War of Germany, von Hassel, said that the leadership of the Bundeswehr provides for the use of "atomic weapons both on the battlefield and in the operational and strategic areas."

Tactical aircraft of the FRG could also be used as carriers of nuclear weapons. The main emphasis was placed on equipping the majority of aviation squadrons with F-104C fighter-bombers. As early as 1964, 60 per cent of all Bundeswehr nuclear delivery vehicles were in the West German air force. In 1964-1965, the Matador cruise missiles in the Bundeswehr Air Force were replaced by Meis cruise missiles, which entered service with two squadrons. Naval aviation was also armed with 104C aircraft115 .

The US and NATO military leadership also took steps to transfer a significant part of the nuclear attack weapons directly to the command of the bloc's armed forces.
In 1963, 3 American submarines with Polaris missiles, part of the British strategic bombers Vulkan and Viktor, armed with Bluestil air-to-ground cruise missiles, were placed at the disposal of the Supreme Commander of NATO Armed Forces in Europe. Canada, Germany, Belgium, Holland, Italy transferred to NATO several squadrons of tactical fighters capable of carrying nuclear bombs. NATO was also assigned aircraft - carriers of nuclear bombs from the French tactical aviation stationed in West Germany. Most of these air attack weapons were later

the backbone of the so-called "NATO Mobile Forces". These forces, according to the NATO military command, were supposed to have a high combat

ability and to be in constant readiness for transfer to the area where hostilities could begin. They were supposed to be an "Integrated force equipped with nuclear weapons" for NATO. In 1965, the mobile forces included detached contingents of the ground forces of Belgium, Canada, Germany, Italy, England, the USA, as well as parts of the air forces of these countries (excluding Canada) and the Dutch air force. In the mid-1960s, mobile forces took part in major NATO exercises, especially those held near the borders of the countries of the socialist community116 .

Thus, the tactical and operational-tactical forces of NATO were assigned a significant role in the war on the European continent. However, the main place in the new strategai was given to strategic means of attack.

In the new conditions, when the expectation of impunity for a surprise nuclear strike on the USSR is a thing of the past, specialists from the Pentagon made adjustments to their plans. If earlier, confident in its impunity, the American command expected to destroy large Soviet cities, military-industrial and administrative-political centers with nuclear bombs and missiles in the first strike, now the emphasis was on the destruction of the Soviet military potential.

It was supposed to destroy the main part of the Soviet means of delivering nuclear weapons with a sudden strike and deprive the USSR of the possibility of a retaliatory strike, and then by the threat of nuclear missile bombardment of Soviet cities and the destruction of the population "try to end the war on favorable terms for themselves."

This concept called "counterforce" was put forward by R. McNamara in the first half of the 60s. So, in February 1962, speaking in Chicago, he stated that the United States could use its strategic forces to destroy "enemy bases before he had time to make the second volleys." In January 1963, he proposed "strike first on Soviet bomber bases, missile launch sites and other military installations associated with their long-range nuclear forces."

range, in order to reduce the force of any subsequent attack on their part, and then, if necessary, strike back at the Soviet urban and industrial complex"117 .

Here it is worth dwelling on the characterization of the personality of Robert McNamara, undoubtedly an outstanding US Secretary of Defense in a series of colorless persons who held this post before him (except for J. Forrestal). To begin with, McNamara, when newly elected President John F. Kennedy invited him to the post, demanded written guarantees from him that he would personally select assistants of his own choice. And he received such guarantees. Further, upon assuming his post at the Pentagon, he immediately stated that "the management of the Department of Defense requires not only strong, responsible civilian control, but such activities of the secretary, which would include active, meaningful and decisive leadership of the Pentagon, and not just passive practice mere consideration of disagreements between traditional and interested factions". Finally, he introduced systems analysis into the practice of the Ministry of Defense, which was carried out by civilian specialists invited by him to work in the ministry. It was they who began to dominate the Pentagon to the detriment of the professional military, whose proposals for the first time (!) Became the object of technical expertise. McNamara

put the principle of "cost-effectiveness" at the forefront. Such a line, in essence, knocked out the initiative in formulating military policy from the hands of the military, and primarily the commanders of the branches of the armed forces.
The Minister of Defense in his practical work relied mainly on the analytical apparatus he created, staffed by civilian specialists. The center of the Pentagon was not operational bodies, as it had always been, but a research and engineering bureau. Based on their findings, decisions were made on new types of weapons and the need to adopt them into service was justified.

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Moreover, McNamara sometimes had a decisive influence on the development of the country's strategy. In fact, he played the role of President Kennedy's chief foreign policy adviser. All these features of the line of the new Secretary of Defense gave rise to his contradictions with the OKNSh and Congress. He developed the theory of "counterforce strike", which envisages drawing the USSR into a quantitative arms race (with the United States always superior in quality). And, unfortunately, in the 60s, the USSR accepted this challenge and responded this time in an identical way, although it had the opportunity to develop its original advanced technologies and achievements in space exploration, advanced rockets, etc. But by 1967, McNamara himself was disappointed in his opposition theories. He realized (and later spoke about it) that the "counterforce" theory destabilized the strategic balance. And then he (one of the first) proposed a containment strategy based on fear. But all this was later, and then the strategy of "counterforce" became an important component of the military-political "doctrine of containing communism." This strategy provided three options for dealing with a period when anything in the world goes against American foreign policy:

the use of force, including strategic means of aerospace attack, to remove obstacles to US policy in the outside world, that is, the right to be the first to strike at the strategic forces of the opposing side (counterforce strike);

infliction of "unacceptable damage" to the enemy's economic potential in the course of a retaliatory or retaliatory strike against US territory (countervalue strike);

demonstrative military pressure on the opposing side during the period
exacerbation of the international situation.
All these provisions were developed in the military policy of the Kennedy administration and were continued after his death by Secretary of Defense McNamara and his successors. Since the territory of the USA is

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Within the reach of Soviet missiles, which could destroy many American cities in a matter of minutes, part of the strategic means of airborne attack had to be redirected from the cities of the USSR to missile and air bases in order to minimize the force of the Soviet missile strike. "To make the nuclear power of retaliation invulnerable, second to none" —
this is how John Kennedy formulated the tasks of military development in the field of strategic weapons.

But now there were already two tasks: the first was to disable the USSR's strategic air defense systems before they struck US cities (counterforce strike); the second is to deal a crushing blow to the cultural and political centers and the national economic potential of the USSR. Such a formulation of the question required a quantitative buildup of strategic missiles; placing part of them (medium-range missiles) at forward bases in order to reduce the flight time for

compared with the MKR of the USSR, located on Soviet territory; increasing the survivability of first-strike missiles. All these tasks were solved by the program for the deployment of strategic weapons adopted by the Kennedy government, which was based on the following provisions:

accelerated commissioning of intercontinental missiles and missiles on submarines, as well as strategic bombers (strategic triad);

qualitative improvement of missile weapons (improving the accuracy of hitting targets and technical reliability);

increasing combat effectiveness at relatively low cost by equipping missiles with individually targetable reentry vehicles (MIRVs), which made it possible to increase the number of warheads that could hit targets;

the creation of an additional strategic threat by the deployment of medium-range missiles in Europe (Thor, Jupiter) and submarines with Polaris missiles, which makes it possible to reduce flight time.

According to McNamara's scenarios, US strategic missiles could deliver a powerful counterforce strike, and then, after a weakened Soviet retaliatory strike on American cities, launch a second strike on the cities and military industrial centers of the USSR. If the Soviet Union inflicted the first strike on US strategic forces, then the United States should be prepared to retain such a number of strategic offensive weapons that in a counter-value strike on the USSR, inflict "unacceptable damage" on the USSR (that is, destroy 25 percent of the population, 50-70 percent economic potential). Calculations by the McNamara department showed that when Soviet missiles hit US cities, they lose about 100 million people, but they either win the war or incline the enemy to negotiate and conclude peace on American terms118. The option of a first strike against the USSR was apparently the most preferable. In any case, in 1962, Kennedy said that the Soviet Union "should not be sure that the United States would not strike the first blow if their vital interests were threatened." Later he went even further, saying that “under certain conditions we must be ready to use nuclear weapons first. ” nuclear war if they deem it necessary. "We give our potential adversary the strongest incentive ... to refrain from striking our cities," emphasized McNamara in a speech delivered at the University of Michigan on June 16, 1962 .

By the end of the 1950s, there were already over 130 large American air, naval and missile bases in Europe, as well as several hundred other military installations. The network of these bases covered Germany, England, Italy, Turkey, Greece, Spain, Portugal, Belgium, Ni

Netherlands, Luxembourg and other countries. The US 6th Fleet in the Mediterranean also adjoined the system of bases. Its aircraft carriers continuously patrolled off the southern coast of Europe in order "to be able," as the American press wrote, "in the event of a war, to send their planes with atomic bombs into the heart of Russia"121 .

The growing involvement of the countries of Western Europe in the process of nuclear missile armament caused growing concern in the world community, and

especially the peoples of Europe. The struggle against the threat of nuclear war, which unfolded in European countries, embraced tens of millions of people of various nationalities who realized the mortal danger threatening humanity in the event of a nuclear catastrophe.

The competition in the arms race, in which both superpowers were increasingly involved, and after them the countries that supported them, affected the vital interests not only of the opposing sides, but of all the peoples of the planet. The paths to collective security outlined by the UN (for which it was created) were blocked by the mutual distrust of the military-political blocs.

The growth of the defense might of the Soviet Union, the growth of its ability to thwart an air-nuclear attack by the United States and NATO, to deliver a crushing retaliatory nuclear missile strike - this is what worried Washington, and has been worrying for a long time. The desire to look behind the "Iron Curtain" dominated US intelligence organizations from the first post-war years. Strictly reliable, documentary data were required. The experience of World War II, as well as of the pre-war years, showed that undercover intelligence did not always provide the government and military command with accurate information. There were many double agents who supplied their masters with disinformation, sometimes leading to very sad consequences. Yes, and "reliable sources" often created an unreliable picture of events. But aerial photography, which has received significant development, and in the last years of the war, and electronic intelligence, which was conducted by Avia

tion, made it possible to obtain reliable, without a doubt, information. Therefore, the CIA and the Pentagon had high hopes for aerial reconnaissance of objects in the USSR.

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CHAPTER V

USA: PENETRATE THE "IRON CURTAIN"

On June 24, 1956, another air parade took place in Moscow in honor of the Day of the USSR Air Fleet. 28 foreign military aviation delegations were invited to it, including the American one, headed by the Chief of Staff of the US Air Force, General N. Twining. The newest

jet fighters created in the design bureau of famous Soviet designers: A. S. Yakovlev, A. I. Mikoyan, P. O. Sukhoi. 7 new samples were shown, which were available at that time in the amount of only a few copies. The display of new fighters caused lively responses

among the guests. The aerobatic skills of our pilots were noted, the clarity
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organization of the parade, the characteristics of the aircraft shown were highly appreciated.

In the afternoon of the same day, the Minister of Defense, Marshal of the Soviet Union G.K. Zhukov, gave a big reception at the Central House of the Soviet Army. After the reception, all the members of the Presidium of the Central Committee of the CPSU, headed by N. S. Khrushchev, the heads of the American, British and French delegations and the ambassadors of these countries, as well as leading aircraft designers, went to the park, where a festive table was laid under the trees. Khrushchev delivers one of his long toasts "in defense of peace" and addresses General Twining. "Today we showed you our aircraft. Do you want to see our missiles?" "Yes," is the quick answer. "So we won't show them to you, -
Khrushchev continued to the laughter of those present. “First, show your planes and stop sending violators into our airspace. We will shoot down uninvited guests."

US Ambassador Ch. Bohlen was excited. They tried to make amends for the incident in the following days with Russian hospitality when traveling around the country. On July 1, the day of the departure of the delegations, N. Twining was solemnly seen off by the highest military leaders of the Soviet Union1 .

But what caused Khrushchev's irritation? What offenders was he talking about? Why did an unprecedented number of foreign military delegations come to the 1956 air parade? We find answers to these questions in what happened in the USSR in the 1940s and 1950s. As already mentioned, in those years, intensive work was carried out in the Soviet Union to create an effective air defense system and test nuclear and missile weapons.

1. Pentagon: secrets of electronic warfare

2.
Since the end of the 40s, when plans for an air-atomic attack on the USSR were hatched in the United States, the question arose before American intelligence, what was the effectiveness of
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Soviet air defense, and in the mid-1950s, the CIA and the Pentagon began to receive information that work was underway in the USSR to create missile weapons of various classes and purposes. Questions arose: what is the state of and prospects for the development in the Soviet Union of various types of the latest weapons; what is priority: missiles or bombers; how developed and reliable the Soviet air defense system is. At first, knowledge of the capabilities of the USSR's air defense was extremely necessary for the successful operations of American strategic aviation in the event of a global nuclear war.

But even before that, immediately after the end of World War II, violations of Soviet borders by American reconnaissance aircraft began. So, in April 1946, when the Soviet Union was withdrawing its troops from Iranian Azerbaijan, the Americans sought to keep the course of the withdrawal under "their control." On April 5 of this year, two American aircraft violated the Soviet-Iranian border in the Astara region and invaded the airspace of the USSR for 6 kilometers. The Soviet government sent a note of protest through diplomatic channels to the US embassy in Moscow. Ambassador Bedell Smith promised to look into the incident and prevent it from happening again. The incident was not reported in the press of both countries, so as not to arouse public opinion about the unfriendly act at a time when allied relations had not yet been interrupted.

But violations of Soviet borders continued in subsequent years. On February 25, 1947, a violation of the Soviet border was noted near Ratmanov Island (Bering Strait), and on December 23 of the same year, in the area of the Chukotka Peninsula. Soviet protests over these cases had an effect. American reconnaissance aircraft were advised, depending on the outline of the borders of the USSR and the countries of Eastern Europe, not to approach them, respectively, at 3,12,20 and even 50 miles from the coast or the borders of the socialist camp2 .

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This continued until, in 1949, the Soviet Union became the owner of the atomic bomb. In the same year, studies of the upper layers of the atmosphere with the help of rockets began in the USSR. Since 1953, anti-aircraft missiles have been successfully tested against aircraft flying at an altitude of 7 kilometers. In 1955, the S-25 anti-aircraft complex, capable of hitting targets at an altitude of 18 kilometers, entered service with the air defense of the Soviet Army. In 1954, the M-4 intercontinental bomber was demonstrated at the air parade in Moscow. In July 1955, the new intercontinental bomber TU-95 was demonstrated for the first time at a parade in Tushino. This turboprop aircraft was far superior in range to the M-4. NATO countries believed that mass production of two strategic bombers TU-16 ("Badger") and TU-95 ("Biar"), analogues of the B-47 and B-52, was launched in the USSR. New

Soviet fighter-interceptors, radar stations for detecting air targets and guiding fighters to a target, information about the intensive work of the USSR on programs to create strategic missiles leaked to the West.

The growth of the defensive might of the Soviet Union, the growth of its ability to thwart an air-atomic attack by the US and NATO, to deliver a crushing retaliatory strike - that is what worried the American ruling circles. Therefore, reconnaissance of Soviet air defense and air force, navy, as well as nuclear plants and missile ranges, became a priority for the relevant bodies of the air force, the CIA and other interested organizations of the United States and a number of other NATO countries. In addition to traditional means (agents, aerial photographic reconnaissance, industrial espionage, etc.), the new conditions for the high saturation of the fleets and armies with electronic equipment required the organization and systematic conduct of electronic intelligence to monitor the operation of the radar network for detecting air targets, test sites for various purposes (nuclear, missile, maritime, aviation

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onnyh) and other important objects. It was then that intensive reconnaissance flights began near the borders of the USSR in order to collect the necessary data.

Accordingly, the Soviet reaction became tougher. Already during 1949 and early 1950, US reconnaissance aircraft were accompanied by Soviet fighter-interceptors. They did not shoot down American intelligence officers, but they showed their readiness for this. So, on October 22, 1949, two La-7 fighters made four visits to the RB-29 over the territorial waters of the USSR and gave warning machine-gun bursts, showing the intruder

the need to leave the dangerous area for him 3 . The American press was indignant at the hostile actions of Soviet fighters against "unarmed aircraft." However, the most objective-minded journalists -
for example, Walter Lippmann noted that the Soviets were simply demonstrating their determination and ability to "oppose American strategic air power" 4 .

It must be said that similar activities were carried out by

intelligence organizations of the Soviet Union, but with less aggressiveness. Warships and fishing trawlers, aircraft and ocean liners equipped with special equipment conducted electronic intelligence of the air defense system of the American continent, research centers and ranges where aviation and missile technology was tested, detection and reconnaissance stations.

For American intelligence, the Soviet air defense and border airfields of the Air Force became a priority in the late 40s.

“We conduct reconnaissance of Russian radar stations, listen, analyze and record their signals. Thus, we learn about the achievements of the Russians in the field of radar and at the same time we study the means of waging a radar war with Russia. We must ensure that our bombers and projectiles are able to fly beyond the visibility of air defense radar systems.

enemy and at the same time be able to detain Russian bombers with the help of our air defense systems. For us it is a matter of life and of death".

This is how the American magazine "Popular Science" defined in January 1961 in an article entitled "Our secret radar war with Russia" what was happening in the airspace near the borders of the USSR in the 50s. Later, this phenomenon was called "secret electronic warfare", which continued with varying degrees of intensity until recent years.

“In this contest of intellects, the main weapons are seemingly harmless black containers with equipment and sharpness of mind. Radar warfare is kept in the strictest confidence - only sometimes newspaper full houses report downed reconnaissance aircraft. Soldiers fall silent when asked about it. It is forbidden to name the numbers of units and subunits conducting radar reconnaissance”5 .

The soldiers didn't stop talking in vain. They knew that reconnaissance aircraft often deliberately violated the airspace of the USSR in order to force as many Soviet radar stations as possible to work and to reveal the capabilities of the radar network of the border regions of the USSR.

For this, a special tactic was developed for the actions of air reconnaissance aircraft, depending on the type of reconnaissance aircraft. The authors of the mentioned article also explained this:

“From the RB-47 aircraft, which is flying at a cruising speed of 850-900 kilometers at an altitude of 12,300 meters, the horizon is more than 320 kilometers away. Thus, this aircraft can fly with impunity along the borders of the Soviet Union and study the operation of radars located on Russian territory at a distance of 320 kilometers.

“Many times,” recalls avionics operator Bruce Bailey, who participated in more than 400 reconnaissance flights, “during the course of the mission we made false maneuvers towards the Soviet

borders to force the Soviets to turn on additional radars . Usually, reconnaissance aircraft flew below the radar visibility horizon, then they sharply gained altitude near the borders of the USSR.

For what purpose? The answer to this was given by the already cited magazine "Popular Science":

“There is no doubt that the Russian radars do not work all the time. Why show your cards? Therefore, electronic intelligence aircraft deceive radar operators - they deliberately fly at close range.

distance in the hope that other radars are connecting. Radar operators no longer fall for this deception, as they used to. An experienced airborne reconnaissance operator studies not only radar signals. It can intercept secret radio communications. However, the main purpose of the radar reconnaissance aircraft is to study the data, with the help of which methods of suppressing enemy radars are determined .

Intensive reconnaissance activities of American aviation in the border airspace of the USSR began in 1949, simultaneously with the adoption of the Dropshot plan and was determined by a special directive of the OKNSh. Here is the text of the transmittal to this directive, sent to the headquarters of the US Air Force Strategic Air Command signed by the head of intelligence of the Air Force:

"Top secret
Air Intelligence Directorate
Lieutenant Colonel Tauler
United States Air Force Electronic Intelligence Program
1. The Joint Chiefs of Staff ordered the branches of the armed forces to embark on an "aggressive intelligence program to obtain maximum information about foreign electronic weapons."

2. Experience shows that aerial reconnaissance is the most effective method of intelligence gathering.
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3. As a result of two conferences - one between representatives of the Strategic Air Command and the US Air Force Headquarters, the other between the heads of the concerned units of the Air Force Headquarters - a program was developed to concentrate electronic intelligence efforts.

4. The attached directive informs the Commander of Strategic Air Command about the forces and means that must be withdrawn for the implementation of this program, and contains the instructions and requirements necessary for the most successful completion of the task.
Recommendation:
5. For the Deputy Chief of Staff - Chief of Operations to study, sign and distribute the attached directive to the appropriate authorities.

C. P. Cabell, US Air Force Major General Chief of Intelligence
June 3, 1949"1 .

The implementation of this directive led in subsequent years to intensive flights of reconnaissance aircraft along the borders of the Soviet Union, often with an invasion of its airspace. U.S. News and World Report writes:

“According to documents and interviews of participants in the events, from 1950 to the end of the 60s, the United States carried out more than 10 thousand and maybe up to 20 thousand spy flights along the borders of the Soviet Union and China in order to identify the forces and means of the air defense system. .. Their task was to establish the deployment and location of radar stations in the Soviet border areas. Due to the secrecy still maintained by the Air Force, Navy, CIA, and National Security Agency—organizations that played a key role in aerial espionage—the exact *number of reconnaissance flights may never be known .*

Naturally, in the Soviet Union, organizations and people associated with the defense of the country, from the first days of the appearance of air reconnaissance at the borders of the country, have been acutely

whether on American aircraft flights. Notes of protest were repeatedly announced, which, as a rule, did not have a positive result. Since 1950, the interception of reconnaissance aircraft began with the aim of forcing them to land on Soviet territory or destroy them.

Between 1950 and 1970, according to US News and World Report, "at least 252 American airmen were shot down in the course of spy air operations, of which 24 were killed, 90 survived, and the fate of 138 aviators has not yet been elucidated." The first victim of this secret air war was an RB-29 aircraft shot down by Soviet fighters over the Baltic Sea near the city of Liepaja. Here is how this episode is described in Soviet documents:

"From the journal of violations of the state border. From April 8, 1950.

"8.04 at 17.30 border violation south of Liepaja. The American B-29 aircraft deepened into the territory of the USSR for 21 kilometers. The demand of our fighters to follow them did not obey and opened fire. After the return fire of the lead fighter, the aircraft turned towards the sea and disappeared" "11 .

And here is the report of the leader of the interceptor fighter group (two pairs of La-11 fighters were raised), the flight commander, senior lieutenant B. Dokin, to the unit commander:

"Being on duty in first readiness at 17.22, I received the command to take off. After takeoff, he received the command to climb 4000 meters and take a course of 360 degrees ... At 17.30 he met a four-engine aircraft with American identification marks south of Liepaja 8 kilometers (on the coastline. - *A. O.), which was heading 135 degrees. Seeing the plane, I approached him in a pair from the right from behind and handed over to the second pair - Senior Lieutenant Gerasimov - force the intruder to land. Gerasimov stepped forward, and making a deep sway, turned to the left. The violator took a course of 270 degrees - and did not go to sea and for a pair of senior lieutenant Gerasimov. Then I gave a warning*

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redundant burst - 12 shells. The intruder began to fire at me. The led lieutenant Tezyaev, seeing this, gave a turn to the intruder, who went with a large decrease and entered the clouds at H - 500 meters. Presumably, the plane crashed 5-10 kilometers from the coast"12 .

A lot of attention was paid to this incident both in the Soviet Union and in the USA. In mid-April, the Minister of the Navy of the USSR I. S. Yumashev reported to the Deputy Chairman of the Council of Ministers of the USSR N. A. Bulganin on the measures taken by the command of the Navy to search for the downed aircraft, as follows:

"To Comrade Bulganin N.A.

I report:

After the death of the American B-29 aircraft on April 8 (according to the foreign press, it was not a B-29, but a US naval reconnaissance aircraft "Priviter" - A. O.), *the Americans took active measures to search for it, examining the Baltic Sea between the islands of Gotland and Bornholm. The search for this aircraft for several days by a large number of aircraft gives reason to believe that the lost aircraft was of particular value to the Americans. It is possible that important secret documents and valuable secret equipment could be found on the plane.*

Given these circumstances, I consider it appropriate to search for the sunken American aircraft and raise it in order to recover

documents and classified equipment, if any.

Approximate coordinates of the crash site of the B-29 aircraft were established by a fighter aircraft of the 4th Fighter Aviation Regiment. Lieutenant Colonel Filanovich, two hours after the plane crashed, observed in the crash area -
at W-56°30'0, L-20°28'0 there is a large oil slick and an unidentified floating object three miles north of it. It can be assumed that the discovered oil spot showed the location of the sunken American aircraft.
To search for the sunken aircraft, a divers survey will be carried out simultaneously from two diving

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stations of the alleged crash site in the area of the discovered oil slick at sea depths of 50 and 65 meters.

In the event of an unsatisfactory result of the diving survey, a bottom trawl and metal detector search will be carried out in the area of the alleged aircraft crash, with a total area of 130 square miles, as indicated in the scheme.

For the production of trawling, 4 minesweepers from the 4th Navy will be allocated.

If a sunken aircraft is discovered, it will be surveyed on the ground in order to seize and raise to the surface, first of all, documents and valuable equipment, and then the aircraft itself.

Estimated time for trawling the area is *one month.*
April 20, 1950 Yumashev"13 .

It remains to add that the search for positive results did not bring any
1950, nor in later periods, including the end of the 90s.

However, then, in the 50th, the Americans realized that it was dangerous to joke with the USSR air defense, they had to be more careful. On May 5, 1950, the OKNSh formulated the goals and procedures for conducting air reconnaissance operations. The main emphasis was placed on electronic intelligence, which was supposed to reveal the number and ability to detect air targets by Soviet radars. General O. Bradley, then chairman of the JCS, suggested that these operations be called the "airborne electronic intelligence project" (AER) and assigned the Air Force intelligence the task of "obtaining as much information as possible about the enemy's electronic means." The procedure for carrying out these operations was also determined:

not come closer than 20 miles to the territory of the USSR or
the countries he controls;

reconnaissance aircraft, as a rule, should not have any weapons14 .

Thus began the flights of electronic reconnaissance aircraft of the US Air Force, which lasted for many years.

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In the course of reconnaissance air operations, there were many dramatic incidents, skirmishes in the air, downed reconnaissance aircraft. However, air battles did not always end with the victory of the Soviet side. On September 4, 1950, in the neutral waters of the Sea of Japan, off the coast of North Korea, a Soviet bomber was shot down by US Navy fighters. 2 crew members died immediately, the third, Lieutenant Gennady Mishin, was picked up by the Americans, but died of his wounds. His remains were transferred to the USSR in 1956.

On November 18, 1952, near Cape Gamow in the Far East, a real battle took place between American carrier-based fighters from a US Navy aircraft carrier, located 100 kilometers from the Soviet coast, and Soviet MIG-15 fighters of the 5th Navy of the USSR Navy. IN

the report said:

"At 14:17, a group of unknown aircraft was discovered south of Cape Gamow. At 2:38 p.m., this group of aircraft began heading north, towards our territory.

At 2:48 p.m., the flight commander, Captain Belyakov, reported from the air that two planes were approaching the tail and that we were engaging with them. After that, communication with the fighters ceased.

As established, the air battle took place at an altitude of 8,000 meters above the sea, 30-35 kilometers from the coast of Cape Gamow and 10-15 kilometers from our sea border.

Of the four fighters, one returned to the airfield, which broke away from its aircraft during the battle. Another, due to engine failure, fell into the sea near Cape Lva and did not participate in air combat. The pilot died. The other two planes were presumably shot down by the Americans.

This was later confirmed by the Americans. True, the American aircraft, presumably R-2 ("Neptune"), according to American data, did not return to its base. In 1952, the Americans lost 2 RB-29s along with

crews 16. The most famous case in 1952 was the crash (or destruction?) of an RB-29 aircraft that took off from Yokota Air Base in Japan on June 13 at 10.07 Japan time; contact was lost with him when, according to the report
the crew of the plane was over the Sea of Japan near the Soviet coast. After that, the RB-29 disappeared. The US Embassy in Moscow sent an inquiry to the Soviet government about the possibility of having any information about the missing plane in the USSR, but received no answer. The US government did not develop this sensitive topic. In Tokyo, it was reported that the State Department did not conduct a special investigation, and relatives were told that the plane was missing. Later it became known that on June 25, a report from the Far East to Moscow indicated that on June 13, an American RB-29 aircraft was discovered 180 kilometers from Vladivostok, which was shot down by a Soviet MiG-15 fighter over Soviet territorial waters of the Sea of Japan south of Vladivostok17 .

The main task of the Americans, as already mentioned, was reconnaissance of the radar network of the Soviet air defense forces. Performing reconnaissance missions, reconnaissance aircraft in the Far East operated from airfields in Alaska (Aielson, Elmendorf) and from Japan. They were interested in the areas of Vladivostok, Khabarovsk, Sakhalin, Sovetskaya Gavan. The Far Eastern regions of the USSR were of interest to the Americans primarily because here the borders of the USSR and the USA (Alaska) came close to each other. In this regard, the Pentagon was interested not only in the radar, but also in Soviet airfields in Chukotka and Kamchatka, from where Soviet bombers, both piston TU-4 and jet IL-28, could take off. Since July 1953, reconnaissance flights over Siberia began to be carried out by new RB-47 jet aircraft at an altitude of about 14 thousand meters. They photographed airfields. The Soviet air defense fighters that flew out to intercept them could not stay at such a height for a long time and, as a rule, did not reach them. RB-29 and RB-50, with

long range, but lower speed and height, conducted reconnaissance along the Soviet borders in the north.

If in the Far East, when conducting reconnaissance flights, American aircraft constantly had to deal with the opposition of Soviet air defense fighters, then on the northern borders of the USSR the situation was different. US Air Force scouts operating in the early 50s in the area

Soviet Arctic, found a few radar posts on the northern borders of the USSR, located at a great distance from each other. This led the US Air Force command and the Pentagon to the idea that it was the northern route, the shortest way leading to the vital areas of the Soviet Union, that would be most favorable for the operation of strategic bombers in the event of a 3rd World War. General Goodpeister, military adviser to President Eisenhower, believed that the absence of Soviet radars in the vast expanses of northern Siberia, all the way to the pole, was the most important operational information in the event of US entry into the conflict of the USSR. "This was one of the most important secrets of the Cold War,"

noted one of the leaders of US electronic intelligence. “We could launch an air attack with strategic bombers across the North Pole, and the Russians had no way of knowing about this. ” its effectiveness in the space between Murmansk and Chukotka was not great.

The intensity of American aerial radar reconnaissance increased every year. By the mid-50s, more than 100 reconnaissance aircraft were involved in solving these problems, and the geography of flights was also expanding. In the north and northeast, reconnaissance was carried out by the 55th strategic intelligence wing, based at Topex Air Force Base in Canada, with about 30-40 aircraft. Improved aviation technology, electronic and photographic

some equipment for reconnaissance aircraft. If in the late 40s and early 50s the main aircraft were RB-29 and RB-50, then already in the mid-50s reconnaissance jets RB-47 and RC-135 were widely used. Naval reconnaissance used R-4M "Mercator", R-2 "Neptune" and other aircraft for the same purpose. The planes were equipped with 100-inch telephoto cameras for photographing ports, factories, shipyards, air bases, missile positions; electronic equipment made it possible to detect the frequencies of Soviet and Chinese radars in the entire range of frequencies used by them, and to determine their location. The annual number of reconnaissance flights increased from 1,000 at the beginning to 3,000 at the end of the 1950s .

From time to time, reconnaissance aircraft flew over the territorial waters of the USSR or invaded its airspace. Soviet fighters took off to intercept, tried to force the violators to land or, if they did not follow orders, shoot them down; air battles broke out, planes were shot down, people died. So, on July 27, 1953, the Soviet military transport aircraft Il-12 during the flight from Port Arthur to Vladivostok was attacked by 4 American fighters. It must be said that on this day a truce was signed between the parties that fought in Korea, and an end to this war was put. The Soviet aircraft followed the established route, which passed over the territory of the PRC at a considerable distance, up to 300 kilometers, from the Sino-Korean border. Approaching the IL-12, the American pilots were convinced that it was a military transport aircraft "flying east." This is evidenced by the reports of Captain Pierre and Senior Lieutenant Scarori, whose fighters attacked the IL-12. Nevertheless, American fighters shot down an unarmed plane 130 kilometers southwest of the city of Dunhua. The crew and passengers - a total of 21 people - were killed20 .

Two days later, on July 29, an RB-50 flying from Yokota (Japan) passed along the Korean Peninsula and went along the Soviet border north of Vladivostok.

There were 17 people on board the reconnaissance aircraft: the crew and specialists. Soviet radars found the plane on the traverse of Vladivostok and flew it. The report of the Commander-in-Chief of the Navy of the USSR, Admiral N. G. Kuznetsov, to the Minister of Defense of the USSR on this incident said:

"The radar stations of the fleet, continuing to monitor the movement of an unknown aircraft, at 7.01 discovered it in our territorial waters - the intruder was heading towards Askold Island at an altitude of 10,000 meters. In order to determine the identity of the intruder and the purpose of its appearance in our waters at 7.06, our two fighter planes were sent to meet with it.

At 7:11 a.m., the leading fighter in the pair (pilot Captain Rybakov) detected an intruder at a distance of 10 kilometers south of Askold Island, which turned out to be an American RB-50 aircraft with red stripes on the keel and 4 US Air Force identification marks. When approaching for identification, our fighters were fired upon by an intruder aircraft, on the leading fighter aircraft, the left blade and the front part of the fuselage were damaged .

The American version was strikingly different from the Soviet one. According to the testimony of co-pilot Captain John Roche, their plane was suddenly fired upon by a Soviet MI G-15 fighter, which hit two RB-50 engines with fire, after which it fell into the sea. Roche was picked up by a rescue ship 18 hours after the crash. He was the only one left alive from the crew22 .

Today it is difficult to say who opened fire first. The situation in those days in the Far East was very nervous. The Korean War has just ended (July 27, 1953). Under these conditions, events could take any turn. In this case, both Soviet and American testimonies show the measure of hostility on both sides and their desire to blame the incident on the enemy.

Relatives of the dead crew members of American reconnaissance aircraft were told that the planes had crashed. Even many years later

authorities

The United States hid the truth from relatives. The wife of Captain Sam Bush, a member of the crew of the RB 29, who went missing off the coast of the USSR in the Sea of Japan during a reconnaissance flight, recalled: "I was told that the mission of the crew was weather reconnaissance." And here is what Gordon Berg, brother of Eldie Ray, who also died along with the entire crew of RB-29, said: "Eldie wrote that they were flying on a serious mission and he was scared ... We were informed that there was no information about the aircraft and about the pilots The Air Force told my mom to come to terms with what happened . "23

But radar reconnaissance was only one of the areas of air espionage. Soon after it began, another appeared.

After Truman's approval in 1950 of a plan to conduct reconnaissance flights with penetration into the deep regions of the USSR, American aircraft (and not only reconnaissance aircraft) began to increasingly make deep incursions into the airspace of the USSR. There were cases when their routes passed through several regions. They also attracted allies.

In the mid-50s, RB-47 reconnaissance aircraft (or an earlier model - RB-45) operated from British airfields with RAF markings. So, on April 17-18, 1952, three RB-45s piloted by British and American pilots, starting from England, invaded the airspace of the USSR and passed along three routes: through the Baltic states, Belarus and Ukraine. The flights took place at an altitude of 12 thousand

meters, to the line of Pskov, Smolensk, Kharkov24. Soviet radars led these aircraft, but fighters and anti-aircraft artillery could not bring them down. As the air defense system of the USSR improved, the risk of such flights increased more and more, losses grew. If in 1950 only one intruder was shot down, then in 1951 and 1952 - two each, and in 1953 - three.

Meanwhile, more and more information was accumulating in the United States about the deployment of an extensive program in the USSR
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construction of new aircraft, missiles, submarines. What is the state and prospects of Soviet strategic weapons, where are the air bases and deployed missile positions - these are the questions that have become the main ones for politicians and the military in Washington.

It was already known that experimental missile launches were being carried out at the Kapustin Yar test site, located in the lower reaches of the Volga. But what? How comparable are they to the intercontinental missiles being tested in the US? It was necessary to penetrate the "Iron Curtain". But how? In the winter of 1954-1955 in Turkey, in a mountainous region near the city of Diyarbekir, with the consent of the Turkish government, a special radar station with a long range was built. In the early summer of 1955, this station went into operation. Its data made it possible to obtain information about what was happening in Kapustin Yar. By the end of 1955, with the help of the radar station in Diyarbekir, the Americans already knew that missiles were being tested in Kapustin Yar, that tests were being conducted intensively and quite successfully. American experts believed that the Russians were far ahead in creating strategic missile weapons compared to the Americans. American public opinion became increasingly convinced that the United States was lagging behind the USSR in the most important areas of scientific and technological progress.

The White House and the Pentagon came to the conclusion that it was necessary to immediately begin collecting data on Soviet programs for the development of strategic air attack weapons. It was decided to organize systematic flights over the territory of the USSR in order to collect information about Soviet weapons and armed forces through aerial photography and electronic intelligence.
During these years, the British adopted the Canberra bomber, which was very advanced for that time. Since, as the Soviet air defense system improved, the losses of obsolete reconnaissance aircraft grew, it was decided to use Canber for reconnaissance.

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ru". Churchill gave permission, but on the condition that the flight would not be from England. In August 1953, the Canberra launched from the Giebelstadt airfield (FRG) along the route: Germany - Czechoslovakia - Kiev - Kharkov - Kapustin Yar (Volgograd region) - Iran.On the way, the plane was repeatedly attacked by Soviet fighters and fired upon by anti-aircraft artillery.From anti-aircraft fire in the Kapustin Yar zone, the Canberra experienced such a vibration that the photographs turned out to be of extremely poor quality.After receiving many holes and dents, the plane still reached Iran, where he landed. But the crew commander, B. Amaury, said: “Never again!” Churchill agreed with this .

The command of the USSR Air Defense Forces at that time considered the Canberra aircraft a very difficult target for Soviet fighter-interceptors. The pilots flying out to intercept were given the task of shooting down the Canberra at any cost, up to and including ramming. Colonel Nikolai Sysoev, commander of the fighter aviation regiment of the Baku Air Defense District, with whom the author of these lines had a chance to serve together in those years, recalled:

"In theory, we were not ordered to ram the Canberra in the forehead, but it was recommended, if necessary, to use a ram in the most vulnerable places of the bomber so that, having damaged it, we would not die ourselves. But despite the desire of the command to direct fighters at the target with the help of radar, at night the MIGs did not intercept the air enemy"26 .

My other colleague, General Mikhail Shulga, recalled how he, a fighter pilot who served in Grozny in 1954, received the task of intercepting the Canberra, which flew from Iran through Kapustin Yar and Grozny with a return to Iran:

"I climbed 16,000 meters and even climbed 16,500 meters. From the ground I was ordered to look for the enemy higher and to the right. And I saw him, but above myself. I tried to increase the height, got my weapons ready for battle, but violate

The body was 1.5-2 kilometers higher. I still tried to gain altitude, but the characteristics of my fighter did not allow this. "Try another leap up," commanded *from the airfield. I made another attempt, but without*

success."27

Secret air war in the airspace of the USSR and on its borders continued.

With the adoption of the "massive retaliation" strategy in the United States, the Americans had to establish targets for strikes on the territory of the USSR, determine the procedure for their destruction, and verify in practice the real capabilities of Soviet aviation and air defense. To this end, systematic reconnaissance flights continued. Part of the aircraft, according to the plan approved by Truman, undertook deep incursions into the airspace of the USSR. So, on April 28-29, 1954, three American reconnaissance aircraft (this time they were RB-47s) with British identification marks, flying out of England (Scalthorpe airbase), repeated the route through the Baltic states, Belarus and Ukraine, with the aim of reconnaissance of the airfields of Soviet intercontinental bombers M-4. However, by that time, Soviet air defense had already adopted more advanced means of combating an air enemy. The plane, approaching Kyiv, was met by strong anti-aircraft fire and, fearing being shot down, turned back. Two other scouts were attacked by fighters and were forced to turn back so as not to expose themselves to further risk28 .

On May 8 of the same year, another three RB-47s, also from England, took off to photograph Soviet military installations in the area of Murmansk, Arkhangelsk, Lake Onega. They were ordered, observing radio silence, to go to the Murmansk region. Two crews, after photographing objects around Murmansk, were to return to the base. The third crew (commander G. Austin) had the task of photographing 9 airfields on the Kola Peninsula, then going to the Arkhangelsk area and further to Onega

lakes and land in Norway. In the Murmansk area, an American intelligence officer was met by three Soviet MiG-17s. It was a serious opponent: the MIG-17 could operate at the same altitudes and speeds as the B-47. Maneuvering, the crew of Austin was forced to deviate from the given route, which made it difficult to complete the task. Near Arkhangelsk, 6 fighters were already raised to intercept an air reconnaissance. RB-47 chose to leave the airspace of the USSR and head for the skies of Finland. Soviet fighters opened fire, the Americans returned fire, but hurried to cross the Finnish border. The only thing they could then report to their command was that heavy Soviet bombers on

northern airfields were not detected29 .

But American aviation continued deep reconnaissance for a possible nuclear strike on the main cities of our country. B-47 bombers, starting from the airfields of Europe, more than once went to the border of Novgorod, Smolensk, Kyiv. According to the conclusion of Soviet experts of that time, it was not excluded that there could be nuclear weapons on board the B-47. This in itself was already dangerous, since there are cases when there was an accidental release of nuclear bombs. Such cases were carefully hidden. So, on February 20, 1950, the B 36 bomber was forced to drop an atomic bomb over the Pacific Ocean, off the coast of Canada. It was blown up 100 meters above the ocean surface. A similar incident was repeated in November 195030 .

Soviet radars detected and observed many flights, but air defense combat weapons were not yet able to successfully counteract jet bombers flying at high altitudes and speeds. This further strengthened the desire of the military-political leadership of the USSR to improve and strengthen Soviet weapons. On a large scale, new radars were introduced into the Air Defense Forces of the country, mobile anti-aircraft missile systems were developed, capable of

hit targets at high altitudes; new bombers, submarines, supersonic fighter-interceptors were built. And this, in turn, pushed the American military-political leadership to even more intensive reconnaissance of new types of weapons in the USSR.

Here it is appropriate to say that the US leadership was fully aware that the illegal intrusion into the airspace of the USSR is a violation of international law. The incident of November 7, 1954 is indicative in this respect. On this day, Soviet fighters shot down an American reconnaissance aircraft RB-29, which made a reconnaissance flight along the coastline of the Soviet Far East in the Sea of Japan. 10 pilots from

crew bailed out and were rescued by US emergency services, one person died31 .

In the United States, a campaign began in the press accusing Soviet pilots of shooting down an innocent aircraft. Senate Republican leader William Knowland appeared before President Eisenhower demanding "sever diplomatic relations with the Soviet Union," citing public demand. Eisenhower cautiously made it clear to the senator that the plane was performing a task that was by no means "innocent" in nature:

“Things happen in international relations that cannot be explained in words to the general public ... We sometimes behave very aggressively, but you don’t know anything about it ... I know things that I can’t afford to tell even my wife ... Our intelligence is very active and often risky. So anything can happen."

He said that he knew the arguments of those who want to break off diplomatic relations with the USSR, but this would be a "step towards war," and finished:

“And if this is done, then the next question will arise: are you ready for an attack? As for me, I personally am not ready for an attack. It is necessary to understand that

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drink the day we have to go to war. And if the people find out that we somehow provoked it .., "p

Nevertheless, despite the full understanding of the danger of violating Soviet borders, American intelligence not only did not stop them, but also

thought over all new moves in this direction, designed to increase the volume of intelligence information and at the same time reduce the risk of failure and loss of life.
In 1956, the US reconnaissance aviation received more advanced photo and electronic equipment. It was equipped with B-47E and B-47H aircraft. In March-May, such aircraft operated from the airbase in Tula
(Greenland), flying over the North Pole and the Kola Peninsula, Novaya Zemlya, the Bering Strait. Every day during daylight hours 4-5 crews took off. Their routes included the invasion of Soviet airspace. These reconnaissance flights confirmed the initial data that the northern regions of the USSR have an underdeveloped radar network and few active air defense systems. "In the same year, Operation Genetrix was carried out: a massive launch of balloons from Germany and Turkey, whose routes passed through the USSR and ended in the Pacific Ocean ,, where containers with photographic equipment were dropped in a designated area, where they were picked up by special teams. However, this operation was not successful. Of the 516 balloons launched, only 44 reached the Sea of Japan. The rest were shot down by Soviet fighters or did not reach the designated area for technical reasons34. Since the launch of balloons into the airspace of the USSR did not give any tangible results, the US Air Force continued deep aerial reconnaissance of the border regions of the Soviet Union.In March 1955, three RB-45s under the command of Major J. Anderson made a reconnaissance flight at night with the task of establishing the deployment and capabilities of the radar station of the socialist bloc in the territory of Czechoslovakia, Poland and the Baltic republics of the USSR. Night was choice 361

wound on purpose to make it difficult for Soviet fighters to intercept the scouts, who countered the spy planes. All three RB-45s returned safely to their bases.

In April and early May of the same year, the US Air Force SAC carried out the "Project Seashore" (sea coast) on a special assignment from the OKNSh. Four RB-47Es, equipped with 100-inch telephoto cameras, carried out reconnaissance flights over the regions of Northern and Eastern Siberia. They operated from Aielson Air Force Base (Alaska). The main task of these flights was to reconnoiter the air defense and air force systems on the northern route, the main one for US strategic aviation, leading to the deepest military industrial regions of the Soviet Union by the shortest routes.

In March-May 1956, the SAC command conducted another reconnaissance operation - the Home Run Project. For 7 weeks, new reconnaissance aircraft RB-47E and RB-47H, operating across the North Pole, flew on missions almost daily and conducted reconnaissance of the Arctic Ocean adjacent to the USSR and the North Siberian regions of the USSR in the space from the Kola Peninsula to the Bering Strait. This operation was carried out by a special SAC unit consisting of 16 RB-47Es of the 10th Strategic Reconnaissance Squadron, as well as 5 RB-47H aircraft of the 343rd Strategic Reconnaissance Squadron. They were served by two squadrons of tanker aircraft (28 KS-97). The flights were made from the Thule Air Base (Greenland) and were conducted in almost complete radio silence.

The Air Force intelligence leadership divided the Soviet Arctic space into three basic sectors: from the Kola Peninsula to Dikson Island (Kara Sea); from Dixon to Tiksi Bay (Laptev Sea); from Tiksi to the Bering Strait. As a rule, B-47s flew in pairs on a photo (E) or electronic (H)

reconnaissance, depending on the purpose of the aircraft. In the course of daily flights conducted during the daytime by the American 362

scout, managed to get photographs of the Soviet Novaya Zemlya nuclear test site; to establish that the radar stations in the north of the USSR are not numerous and are separated from each other by considerable distances. The airfield network in these areas clearly did not provide the required number of interceptors. During the entire operation, only in three or four cases did the RB-47 have to evade the pursuit of Soviet fighters.

The lack of effective air defense in the north of the USSR allowed the Americans to move on to more active operations. On May 6 and 7, 1956, six RB-47s, taking off from the Tule airfield, crossed the North Pole and intruded into the airspace of the Soviet Union during daylight hours near the town of Ambarchik. They managed to freely photograph the territory from Anadyr to the Bering Strait, after which they landed at the Aielson airbase (Alaska). In total, 156 reconnaissance flights were made from Thule during this period near the Soviet northern borders.

Soviet radars observed and tracked these flights, but the small number of fighters, and, as a rule, of obsolete types, did not allow the fight against intruders to be in any way effective. But the government of the USSR did not disregard the activities of American aviation near the northern borders of our country. The US Embassy in Moscow was handed a note of protest dated May 14. On May 28, President Eisenhower invited the top leadership of the US military and the CIA to a meeting about the Soviet note. It was decided to stop air reconnaissance flights in the north of the USSR. The next day, the State Department handed the Soviet Ambassador in Washington a note expressing regret that navigational difficulties in the Arctic could cause American aircraft to violate Soviet airspace, if any .

Thus, until the second half of the 50s, the aviation of the United States and NATO countries conducted mainly reconnaissance
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border regions of the USSR, trying to obtain information about air defense and nearby airfields. But over time, more and more information was accumulated about the work in the USSR to create nuclear and missile weapons. However, the main objects of these programs (test sites, positions for the deployment of new types of weapons, etc.) were located in the depths of Soviet territory, where it became increasingly difficult for Western air reconnaissance to penetrate. The parade in Moscow in 1955 showed that the Soviet Union had achieved significant success in the field of creating strategic aviation. American public opinion became increasingly convinced that the United States was lagging behind the USSR in the most important areas of scientific and technological progress.

The Pentagon and the CIA came to the conclusion that it was necessary to immediately begin collecting data on Soviet programs for the development of strategic air attack weapons.

Such a tool was a plane specially designed for conducting photographic and electronic reconnaissance from high altitudes, inaccessible to fighters and anti-aircraft artillery of that time, created by the talented engineer Clarence Johnson, vice president of the Lockheed aircraft manufacturing company, and his employees Edwin Land and Edward Purcell. They

called their brainchild "Angel", and officially U-2 (from the English word *utility*— practical).
The search for a high-altitude reconnaissance variant began as early as 1951, when the American company Martin tried to adapt an improved version of the Canberra for this purpose. However, intelligence experts in the US Air Force came to the conclusion that a twin-engine aircraft would never be able to gain the required height. Then the Lockheed firm got down to business. In the fall of 1954, the creators of the U-2 project turned to CIA Director A. Dulles with a proposal to finance and adopt their project. Dulles was against it at first. Knight "cloak and dagger

la", he considered reconnaissance aircraft to be a purely military means. However, Johnson and Land convinced him. On November 24, the inventors of the U-2 met with President D. Eisenhower. They convincingly convinced him that only such an aircraft could provide the necessary information about what was demonstrated in In May of that year, at a parade in Moscow of a Soviet M-4 bomber (Bizon in NATO terminology), without the risk of being shot down by Soviet air defense, the President agreed that this aircraft be used under the auspices of the CIA, and not the Air Force .

The commander of the strategic air command, General Lemay, underestimated the capabilities of the U-2, which he later regretted. And then he told the officer who described the U-2 as a very effective means of photographic reconnaissance: "Young man, if I need to get photographs of objects in the USSR, I will send the B-29" 38 .

The CIA, meanwhile, set tasks for high-altitude reconnaissance aircraft. First of all, they were supposed to conduct flights over the territory of the USSR and obtain information about Soviet weapons and armed forces. The U-2 was a single-seat reconnaissance aircraft with a Pratt-Whitney J-57 turbojet engine. He was able to fly at altitudes up to 20 kilometers, take aerial photographs from these heights and conduct electronic reconnaissance. Such a height ensured the inaccessibility of the aircraft for Soviet air defense systems of that time. The aircraft could fly a distance of 4,750 miles (8,800 kilometers) without refueling and stay in the air for about 11 hours.

The designers of the aircraft in February 1955 completed the experimental model. The CIA has developed programs for upcoming reconnaissance flights in the interests of interested departments. The program was led by Deputy A. Dulles Richard Bissell.

The first test flight of the U-2 took place in August 1955, and in May of the following year the first detachment of these aircraft (the "10-10" unit) was formed, which began to be deployed in England. However, soon

The Tang government, fearing complications in relations with the Soviet Union, demanded that the reconnaissance detachment be removed from England. He was transferred to West Germany, to the Wiesbaden air base (near Frankfurt am Main), where he was preparing for the upcoming reconnaissance flights.

The director of the CIA that spring was pleased with the performance of his agency. In West Germany, with the help of German intelligence, American intelligence officers secretly dug a tunnel from West Berlin to East Germany, which led them to underground secret communication lines between Moscow and East Berlin. This made it possible to eavesdrop on secret negotiations with the Group of Soviet Forces in Germany and the leadership of the GDR.

Reporting to Eisenhower on the completion of work on the U-2 project and in the Berlin tunnel, Allen Dulles told the president: "I came to report to you about

two most original projects: one very high and the other very deep"39. Here it is appropriate to note that if the "high project" - U-2 operated successfully for 4 years, then the "deep" one - the tunnel near Berlin -
failed a year later: it was uncovered by Soviet counterintelligence in April 1956
of the year.

The US Air Force command, which rejected the U-2 project, insisted to the president that the RB-57D reconnaissance aircraft be adopted for the SAC. It was a reconnaissance version of the British Canberra, which was bought by the United States under license. This single-seat aircraft had two Pratt-Whitney J-57 engines, therefore it developed a higher speed than the U-2 (up to 900 km / h), but in terms of the main parameter - altitude - it was inferior to the latter. Nevertheless, Eisenhower allowed the Air Force to use this aircraft for reconnaissance of the Soviet Far East. Three RB-57Ds were stationed at the end of 1956 in Japan, at the Yokota airbase. On December 11, they made flights to the Vladivostok region. However, contrary to the hopes of American intelligence officers that the Soviet radars would not be able to see the RB-57 at a considerable height (more than 17 kilometers), they were discovered. Soviet fighters were raised.
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American pilots preferred to stay away from them, outside the territorial waters of the USSR. A note of protest from the Soviet government dated 14 December confirmed the discovery of an attempt to violate Soviet airspace. It said:

"On December 11, 1956, at 13.07-13.21 (Vladivostok time), three American B-57 type jet aircraft, appearing from the Sea of Japan south of Vladivostok, violated the airspace of the Soviet Union ... Clear weather in the area of the violation and good visibility ruled out the possibility of losing orientation pilots during the flight ... The government of the Soviet Union insists that the US government take measures to punish the guilty crews and in the future not allow violations of the state borders of the USSR by American planes"40 .

The US government has apologized. Eisenhower forbade Air Force aircraft to invade the USSR during reconnaissance flights, but made an exception for the CIA and its U-2. However, each of their flights was carried out only with his sanction. He approved the U-2 program at the end of 1954, counting on the fact that the high flight altitude would not allow them to be detected by the Soviet radar and there would be no complications with the Soviet Union. But a year later, when preparations were already underway for the practical implementation of the program, he told its leaders: "All this is good, guys. I think that the country needs such information, and I am ready to approve your program. But I must tell you one thing: there will come the day one of these machines gets caught, we'll get a storm."41 He turned out to be a visionary: after 5 years, the U-2, piloted by pilot F. Powers, collapsed from 20 kilometer high to the ground near Sverdlovsk (Yekaterinburg), shot down by a Soviet anti-aircraft missile.
But all this will be later, and then, in 1954-1956, the pilots selected by R. Bissel mastered the new technique. Needless to say, this task was not an easy one. In the course of test flights only in these years, 5 pilots died, before 1960 (F. Powers' flight) - 15, and in total (until 1974) - 2542 .
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In 1956, Eisenhower authorized U-2 flights in the airspace of the USSR and other countries of the socialist community. They intended to start them in June, but the weather in the western regions of the USSR prevented such flights. Therefore, on June 20, pilot Karl Overstreet flew over Poland and East Germany: he was over Warsaw, Berlin and

Potsdam. The flight was successful. At the end of June, the weather in the USSR improved, but the U-2 flights were postponed due to the stay of N. Twining in the USSR - at the air parade in Tushino and on a trip around the country.

2. CIA: what is there beyond the Urals?

Finally, on July 2, 1956, Eisenhower authorized five deep incursions into Soviet airspace during July, depending on meteorological conditions. The first flight took place on the Independence Day of the United States - July 4th. Since this was a few days after N. Twining's departure from Moscow and Khrushchev's boastful speech at a banquet on June 24, the Kremlin considered this flight as an act of revenge on the US Air Force Chief of Staff. But it was just a coincidence: the decision had been made earlier.

Within 10 days, a U-2 detachment from West Germany made these five deep incursions into Soviet airspace at an altitude of 20 kilometers. One of the aircraft passed over Moscow, in the vicinity of which it discovered airfields based on M-4 bombers. Another photographed a shipyard in the Leningrad region where submarines were being built. The photographs taken with cameras with a focal length of 36 inches (90 centimeters) were of exceptionally high quality. As Bissell recalled, "The details were so clear that you could read the tail numbers on the bombers." Other flights were also successful.

For Soviet military intelligence, these flights were not a secret from the very beginning. Already the first flights of heights

ny scouts were observed by Soviet radar stations. So, on July 4, it was established that the U-2, discovered over Frankfurt am Main, proceeded through Dresden and Bialystok and at 0818 hours crossed the Soviet border at an altitude of about 17 kilometers. He passed at this altitude at a speed of 800-1000 km / h (taking into account the tailwind) along the route: Bobruisk, Vilnius, Kaliningrad and left towards the Baltic Sea. The flight over the territory of the USSR lasted more than 2.5 hours. The next day, the same flight was found on the route: Frankfurt am Main, Pinsk, Vilnius, Kaliningrad, Rostock, Hamburg. The plane spent almost 3.5 hours over the territory of the USSR, deepened 1000 kilometers into our airspace, flying at an altitude of 18 kilometers at a speed of 800 km / h.

On June 9, three deep intrusions into the airspace of the Soviet Union were detected at once. Aircraft at an altitude of 16-20 kilometers appeared from West Germany (Frankfurt am Main, Nuremberg). One of them flew along the route. Prague, Szeged, Lvov, Zhitomir, Kyiv, Gomel, Bobruisk, Baranovichi, Brest, Munich; the second is Szczecin, Kaliningrad, Liepaja, Riga, Kaunas, Minsk, Demblin, Erfurt; the third is Minden, Szczecin, Kaliningrad, Liepaja, Riga, Kaunas, Bialystok, Lodz, Berlin, Hannover. Over the territory of the USSR they were 3-4.5 hours, deepened by 700-1400 kilometers at a speed of 800 km / 4. The next day, another high-altitude reconnaissance aircraft was spotted, which, at an altitude of 20 kilometers at a speed of 900-1100 km / h, followed from Frankfurt am Main through Dresden, Chernivtsi, Odessa, Nikolaev, Kerch, Sevastopol, Izmail, Varna, Miskolc and left, in Germany. This was the end of the first series of high-altitude American reconnaissance flights44 .

The radar stations of the Soviet Union and the Warsaw Pact countries followed each of them (with some interruptions) throughout the route, the air defense fighters went to the target, but their ceiling was below the U-2 heights by several kilometers,

which prevented it from being effective.
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Measures were also taken through diplomatic channels. On June 10, 1956, the Soviet government sent a note of protest to the US government, stating that the violations of the air borders of the USSR by American aircraft were "a deliberate action by certain US circles, calculated to aggravate relations between the Soviet Union and the United States of America." In this note, as in notes of previous years, in connection with the intrusion of American military aircraft into the airspace of the USSR, it was emphasized that such actions are a violation of international law.

The Soviet note stated that the violation was carried out by "twin-engine aircraft of the Air Force", and the Americans became aware that the leaders of the Armed Forces and the KGB of the USSR did not have accurate data on the violating aircraft, since the U-2 had one engine. The plane did not have US Air Force markings, so the State Department, while denying US involvement in the facts of the invasion, was not afraid of being caught red-handed.

But after the July series of reconnaissance flights in 1956, there was a pause. This was due to the fact that President Eisenhower banned U-2 operations over the USSR until further notice, which was facilitated by the events of this autumn associated with the invasion of Anglo-French-Israeli troops in Egypt, and the uprising in Hungary, crushed by Soviet troops. The US government was afraid of any incidents in relations with the Soviet Union and did not want to

give reasons for it.

Meanwhile, the areas of action of high-altitude reconnaissance flights were expanding. In the fall of 1956, one of the U-2 units was transferred to Turkey, to the Adana airbase. From there, in September-October of this year, Francis Power and his colleagues made their first flights on the U-2. During the days of the Suez crisis, they conducted intelligence in Egypt, Israel, Jordan, Saudi Arabia and Cyprus. The head of these operations, Richard Bissell, sought permission from the US government to resume flights.
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over the USSR. The CIA and the strategic air command were interested in the Kapustin Yar test site, defense enterprises and air bases in Ukraine, the Caucasus, and the Volga region. But the president did not agree to the flights, citing the tense situation in the world. He allowed only shallow incursions into the countries of Eastern Europe and only in January 1957 gave permission for flights over the USSR.

A new series of reconnaissance flights began. But now they covered ever deeper regions of the USSR. Reconnaissance aircraft penetrated into Kazakhstan and Siberia, where new types of Soviet strategic ones were tested. weapons. From March to October 1957, Soviet air defense radars noted 5 U-2 overflights: 1 in March, 2 in August, one each in September and October. In contrast to the flights of the previous year, U-2 aircraft were now conducting reconnaissance of the regions of Transcaucasia (March, August), Kazakhstan, Central Asia, Siberia (August - September), the Soviet North (October). They entered the airspace of the USSR for 150-1650 kilometers at altitudes of 19-21 kilometers at a speed of 700-900 km/h And as before, for the active means of the USSR Air Defense Forces (fighter aircraft, anti-aircraft artillery), they were out of reach.

Meanwhile, 1957 was the year of the breakthrough of the USSR into space. The successes of the Soviet rocket scientists were accompanied by a noisy propaganda campaign widely launched by the government of N. S. Khrushchev. This even more encouraged the Americans to intensify illegal penetration behind the "Iron Curtain" in order to collect reliable information. U-2 flights, providing

documentary data, were one of the most important sources of information about Soviet weapons programs. In 1960, the New York Herald Tribune wrote that with the help of the U-2, the United States began to receive "more reliable (than before. - *A. O.)* data for the state assessment"45. Therefore, in 1958-1959, the U-2 scouts concentrated their efforts on reconnaissance of the regions of Soviet Central Asia, the Urals, Siberia and the Far East. U-2 units began to be based in Japan (Atsugi airfield) and in Alaska. By

Since the four flights made during this period (according to Soviet data) went unpunished, the Americans became more and more convinced that the Soviet Union did not have sufficiently effective air defense systems, and therefore, in the event of war, massive strikes by American strategic aviation would not meet with serious opposition, especially in the northern direction. The reconnaissance of Soviet strategic missile weapons showed that in 1957-1958, 6 launches of intercontinental missiles were made in the USSR, and this made it possible to conclude that more than 100 ICBMs were unlikely to be put into operation in 1959-1960 .

All this happened against the backdrop of more frequent cases of aggravation of the international situation. In 1957, the Turkish-Syrian conflict broke out, the following year, the American marines landed in Lebanon, and the situation in the Far East around Taiwan escalated. The Soviet Union repeatedly demanded an end to "imperialist interference", while declaring that otherwise the USSR would be forced to use force. However, the US did not respond to these protests.

From the start of the U-2 flight program until May 1, 1960, when F. Powers was shot down near Sverdlovsk, about 20 sorties of reconnaissance aircraft were made. Each of them was carefully prepared in advance by the Bissell group, with the participation of representatives of the White House, the CIA, the Department of Defense, the Atomic Energy Commission, the State Department and other interested departments.

In order to create the most favorable conditions for reconnaissance of objects in the deep regions of the USSR, it was decided to conduct part of the reconnaissance flights using the air bases of Turkey and Pakistan - in particular, Peshawar. This was explained by the fact that, according to American data, the radar coverage of the Soviet airspace on the border with Afghanistan, in the area closest to West Pakistan, was very weak. In addition, starting from Pakistan, reconnaissance aircraft could quickly reach the most important for American intelligence

Soviet facilities - testing grounds for missile and nuclear weapons.

For reconnaissance flights from Pakistan, U-2 aircraft were used, which were once transferred from Germany to Turkey to the Adana airbase, located in a sparsely populated area, where it was easier to hide reconnaissance aircraft from prying eyes. In addition, in the south of Turkey there were favorable weather conditions, which made it possible to fly at any time of the year.

By that time, Soviet intelligence already had a lot of information about the technology of the U-2 flight program. It was also known that Soviet military installations were photographed by reconnaissance aircraft flying not only from Pakistan and Japan, but also from airfields in Alaska.

The aerial photographs obtained as a result of U-2 flights were carefully studied by CIA specialists. These pictures, according to American intelligence officers, were of great value. They made it possible to open many nodes of the Soviet air defense system, to establish the location of fighter airfields -

interceptors, anti-aircraft missile positions, many radar stations and other components of air defense, especially around large cities of the USSR. Pictures from the U-2 showed that extensive construction of nuclear submarines capable of carrying ballistic missiles was launched in the USSR. At the same time, aerial reconnaissance documented that no significant construction of strategic bombers was being carried out in the USSR. The photographs, revealing the location of aircraft factories, made it possible to draw conclusions about the possibilities of producing strategic bombers (by American standards, they turned out to be very modest), to obtain information about the approximate number of strategic aviation and its airfields.

Obtaining data on the Soviet missile program required a lot of effort and time. Only a few years after the start of U-2 flights did the American leadership have extensive information about the Soviet

strategic missiles. It was possible to establish that medium-range missiles (900-4600 kilometers), designed mainly for operations in the European theater of war, are being tested at the Kapustin Yar training ground. A test site for intercontinental missiles was discovered in the summer of 1957, shortly after U-2s began flying from Pakistan. It was located near the settlement of Tyuratam (Baikonur), located on the railway line near the Aral Sea. From here, missiles were launched eastward against training targets in Kamchatka and later in the Pacific Ocean. In terms of equipment and scope of work, Tyuratam was comparable to the American test site at Cape Canaveral, where US intercontinental missiles were tested. When photographing objects in Tyuratam, a U-2 camera captured a Soviet ICBM on a launcher. Equipment for launching artificial Earth satellites was also found there.

Soon the reliability of intelligence information began to be confirmed in practice. In August 1957, an intercontinental rocket was successfully launched from the Tyuratam test site, and in October and November of the same year, the first Soviet satellites were launched. There was no longer any doubt that the Soviet Union possessed intercontinental missiles. Moreover, US intelligence has concluded that Soviet missiles of this class are superior in size and engine power to American ICBMs.

Comparing this with a number of successful tests of nuclear bombs that have been carried out on Novaya Zemlya in recent years, the Americans have come to the conclusion that the USSR is ahead of the United States in the field of nuclear missile weapons.
In general, in those years, it seemed to politicians and military figures in Washington that the economy of the USSR was developing very successfully: the annual increase in investment in industry was 12 percent, the standard of living of the population was rising, great successes were achieved in the education system, etc.

At the same time, since 1958, according to US intelligence, the military spending of the USSR began to increase. The mass production of rocket weapons and their adoption by the Soviet Army and Navy began. According to Pentagon calculations, by the mid-60s, the USSR could put up to 500 ICBMs on combat duty. This, it was believed, would be enough to destroy the main air and missile forces of the US Strategic Air Command, which could be in service by that time, and destroy the main US cities in a surprise strike.
Information was also accumulating about the development in the USSR of work on the creation of anti-aircraft missile weapons. U-2 discovered an air defense range in Sary-

Shagane, near Lake Balkhash. There, as it was established, test launches of anti-aircraft missiles were conducted, and successfully.
All this was very disturbing for the White House and the Pentagon. There was a fuss in the American press about the US lagging behind the USSR in missile programs. However, by the beginning of 1960, American intelligence had established two significant, from its point of view, facts: first, the deployment of missile positions in the USSR proceeded at a very slow pace; secondly, almost all combat positions were located along the Trans-Siberian Railway. The Americans explained this by the fact that the first Soviet ICBMs were too heavy and bulky, so they could only move by rail, and be delivered to positions along railway lines. The gigantic size of these missiles made it difficult to place them in mines, and launchers were placed on the surface. A major drawback of the first generation Soviet ICBMs was the extremely unstable liquid fuel, which had to be changed at short intervals, which also made it difficult to keep the missiles in constant combat readiness. This information was obtained during the U-2 flights, which, of course, was a great success for American intelligence, but not as complete as American historiography tries to present it. Of course, the reconnaissance flights of the American U-2 military aircraft, which continued in those

over several years, became a difficult problem for the Soviet air defense and air force and a constant, as they say, headache for the Soviet high command and political leadership. The fact is that these flights were carried out just at a time when the Soviet air defense was relatively weak, was in the process of re-equipping with modern air defense systems: new radars, high-altitude interceptor aircraft, anti-aircraft missile systems (SAM), reconnaissance equipment.

In those years, the author of this book served in the intelligence agencies of the country's Air Defense Forces, first at the headquarters of the Baku Air Defense District, and then at the Central Command Post and at the Main Headquarters of the country's Air Defense Forces in Moscow. The reconnaissance and radio engineering troops of the Air Force and Air Defense followed, as already mentioned, all U-2 operations from the very first flight on July 4, 1956.

I must say that the first flights of the U-2 at such an altitude were in doubt, because the radar stations were conducted with significant interruptions - failures, since many radar stations of that time - P-8, P-10, etc. - did not have altimeters, but only determined the azimuth and distance to the target. More advanced radars - P-12, P-30, P-35 - could detect targets at an altitude of twenty kilometers or more, but they were still not enough, and therefore it was not always possible to track a high-altitude target confidently, without failures. In just 4 years, we noted and conducted 18 U2s, although, according to American data, there were more than twenty of them.
As for the tactical and technical characteristics of the U-2, in the early years we had a very vague idea about this aircraft. Specialists and major military leaders believed that an aircraft (even a high-altitude one) could not fly at an altitude of 20,000 meters for 7-8 hours. Only A. N. Tupolev admitted that there is such an aircraft, and drew his scheme, close to the U-2. Others believed that the U-2 could only go part of the route at such an altitude, and the rest of the time it should be at lower altitudes, and therefore within reach for our fighters. Therefore, wherever there were such fighters, especially the MIG-19

(ceiling - 18 kilometers), they were raised to intercept the U-2 when they flew in the base areas.

There were also funny things. So, in February 1959, a pilot from the Turkestan Air Defense Corps on a MIG-17 climbed to a height of 17—

18 thousand meters and saw above, 3-4 kilometers above him, a strange cruciform-shaped aircraft. Returning to the airfield, he described it, but the commander of fighter aviation, E. Savitsky, who arrived at the regiment, considered his report untrue. "There are no such planes," he said.

In the meantime, intelligence information about the U-2 was also accumulating in our country. We already knew that the U-2 could make long flights of 8500-8800 kilometers without refueling and stay in the air for 8-10 hours. U-2 airfields were also installed in Germany, Turkey, Japan, Alaska, and Pakistan. By the end of the 50s, the scheme for preparing the U-2 for a mission became clear. As a rule, a few days before the sortie, the U-2 and the S-130 accompanying it flew from Adana (Turkey) to Peshawar (Pakistan), where the U-2 pilot spent 1-3 days, waiting for good weather conditions, and then flew out on a mission . The choice of Peshawar as the launch airfield was also not accidental. Firstly, there was a weak radar network in TurkVO, which made it possible to pass through it unnoticed, and secondly, this route took the reconnaissance officer by the shortest route to the area of \u200b\u200bthe most important training grounds Tyuratam (Baikonur), Sary-Shagan, Semipalatinsk, Kapustin Yar and other important objects.
By 1960, with the formation of the Strategic Missile Forces in the Soviet Union, and given the areas that had already been explored by the U-2, it became increasingly clear on which routes new high-altitude flights should be expected. By the end of 1957, S-75 mobile anti-aircraft missile systems (SAM) began to enter the air defense armament. Their tactical and technical data made it possible to hit air targets at an altitude of 25 kilometers at a speed of 1500 km / h at a distance of 30-40 kilometers. By 1960, S-75s were already in a number of air defense formations. The loop around U-2 was shrinking.

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The Soviet leadership was extremely nervous about the U-2 flights, which obtained information that gave a fairly accurate picture of the deployment of strategic weapons in the USSR. And it undermined Khrushchev's noisy propaganda campaign about the number and accuracy of Soviet missiles. Notes of the Soviet government (and there were three of them - July 10, 1956, March 8, 1958-
th, April 21, 1958) were ignored by the United States.

The U-2 flights revealed the quantitative state of Soviet strategic weapons, but they exaggerated the number of combat-ready launches and did not give a qualitative picture of the Soviet military efforts and their prospects. In the unfolding arms race, the USSR created powerful ICBMs capable of carrying large nuclear warheads. U-2 air reconnaissance spotted the first R-7 launches, but did not find that the warheads, exploding in the air, did not hit the target before approaching the target. They were unable to determine the location of the Soviet missiles and their capabilities, which led to the Powers incident. Work on the creation of Soviet strategic cruise missiles, work in the field of anti-missile defense, and a number of elements of the space program of the Soviet Union47 were not disclosed. In the future, despite the data available in the United States on the USSR's nuclear missile weapons, by the 1970s it was able to achieve strategic parity with the United States, which led to a relaxation of political tension.

The successes of the Soviet Union in space exploration testified that it was confidently moving towards the status of a superpower. In May 1958, the USSR launched another satellite into orbit - an entire laboratory with a complex of research equipment. In 1958-1959, automatic interplanetary stations for lunar exploration were created, and work on a manned spacecraft was in full swing.

All this was painfully perceived by American public opinion. Overseas, the impression was that the USSR was ahead of the United States in very important areas of technological progress. The growth was impressive.

the influence of the USSR on the countries of the "third world" and the pace of development of the countries of the "socialist camp". According to the forecasts of American experts, the economic potential of the United States and Western European countries in 1960-1970 could increase by 40 percent, that of Japan by 55 percent, while that of the USSR by 70 percent, and that of Africa and Latin America by 60 percent .

The leaders of the military department and special services were especially worried about the programs for creating modern weapons in the USSR. As the U-2 flights and information obtained in other ways showed, more and more new positions of strategic missiles were deployed in the Soviet Union, nuclear submarines were built, anti-aircraft missiles, high-speed interceptor fighters began to enter service, air defense forces were widely equipped with radar and electronic equipment. But the impunity of U-2 flights testified to the fact that the USSR did not yet have the means to combat high-altitude aircraft, that Soviet propaganda of the growing military power of the Soviet Union clearly exaggerates the successes of science and technology in this area, although high-altitude reconnaissance flights showed an intensive flow new types of weapons to the troops.

The leadership of the CIA was aware that in the context of the constant improvement of Soviet air defense, the risk of deep incursions into the airspace of the USSR was increasing. Therefore, measures were taken to improve the safety of U-2 flights. In 1958, high-altitude reconnaissance aircraft were equipped with passive jamming equipment to make it difficult for the Soviet Air Force and Air Defense to aim fighters and anti-aircraft missiles at a high-altitude target. The following year, the Pratt-Whitney J-75 high-powered engine was installed on the U-2, which made it possible to raise the practical ceiling of the aircraft to 22 kilometers. The routes of reconnaissance aircraft were selected away from the positions of anti-aircraft missiles, which were already known to the Americans.

We were also alarmed by reports coming from agents from the USSR that Soviet intelligence was accumulating all

more information about U-2 flights. Richard Helms, one of the leaders of high-altitude intelligence operations against the USSR, recalled: “When in early 1959 I learned from the report of one of the best CIA agents embedded in Soviet military intelligence, Pyotr Popov, that the GRU had intelligence about the U-2, I almost didn't fall off the chair .

A particular stir in Washington was caused by the incident with the C-118 aircraft in the summer of 1958. This military transport aircraft (one of two used by CIA Director Alain Dulles) on June 27 flew from Wiesbaden (Germany) to Pakistan, to the Peshawar airfield, from where U-2 flights were made. On board the plane, which had US Air Force markings, were nine officers and soldiers, three of whom were CIA employees. They carried secret documents related to the program of reconnaissance flights over the USSR. Before the plane took off from West Germany in Wiesbaden, Dulles' deputy, General S. Cabell, disembarked. On the section of the flight route from Adana (Turkey) to Tehran, the C-118 aircraft violated the border of the USSR over the territory of Armenia.

The author of these lines served at that time in the intelligence department of the headquarters of the Baku Air Defense District. In the evening of that day, I was urgently summoned to the command post of the district. An intruder aircraft was flying over Armenia. Judging by the speed and altitude, it was

transport aircraft. A pair of fighters raised to intercept (I remember it was the Yak-25) easily "reached the target. The time was about 22 hours, the moon was shining. The leader of the pair reported:" I see the target - an American military transport aircraft, on our signals - follow me landing - does not react, seeks to leave the cordon, to Turkey. What to do?"

This question was asked because then, in the 50s, the orders of the Minister of Defense on actions against violators often changed. Some of them indicated that in case of failure to comply with the requirements of the fighters, the target should be shot down, in others - it was prescribed only to force a landing, and no further actions were mentioned. IN

at that time, only forced landing was envisaged.

The situation, however, demanded decisive action.

The commander of the district, Colonel General V. D. Ivanov, who was at the command post, asked the Central Command Post of the country's Air Defense Forces in Moscow: what to do, the target is moving towards Turkey? From there, the answer is: act according to the situation. And then Ivanov made a decision: to shoot down.

Fighters completed the task. The aircraft caught fire and began to lose altitude. Five crew members jumped out with parachutes. But at that time, the pilot, Major Lall, shot down the flames with a successful maneuver and, accompanied by fighters, landed the plane at the Gindarch military field airfield in Armenia. There were four other people on the plane. They were arrested, the plane was taken under guard.

The local population, mistaking the American pilots who jumped out on parachutes for saboteurs, detained the paratroopers and handed them over to the police. After the initial interrogation in the district departments of the KGB, the Americans were handed over to the interdepartmental commission (KGB, MO, border troops), which had flown in from Baku.

As soon as this became known, a group of officers from the headquarters of our district, including me, as well as employees of the KGB of Azerbaijan, flew to the scene. During the night, the crew members who remained on the plane, as well as those detained by the local population, were taken to Kirovabad (now Ganja), and from there to Baku. The Americans were placed in the KGB building (not in prison), two in a room. For nine days we found out the circumstances of the incident. They were treated correctly. They replaced torn and burnt clothes, provided the necessary medical assistance, and organized good food. They even congratulated us on the national holiday of the USA - Independence Day 4

July.

All Americans had US Air Force IDs. According to their version, the aircraft performed

a regular flight to serve the American embassy in Iran and followed to Tehran, but, bypassing a thunderstorm front over Turkey, mistook Lake Sevan in Armenia for Lake Van in Turkey.

During the investigation, we realized that not all Americans on board the C-118 were "Air Force officers", and the facts showed that some papers were destroyed on the plane. However, there was no direct evidence. Only many years later it turned out that it was a CIA plane on which three of its employees flew to Peshawar. The senior officer from the crew, Colonel Dale Brenner, already in the 90s told reporters that they managed to destroy important documents on upcoming reconnaissance operations during the landing approach. CIA officer Major Benny Shoup claimed in an interview that he personally managed to tear to shreds and swallow a document relating to U-2 flights.

Perhaps, with a longer investigation of this incident, we could have obtained all the necessary information from the C-118 crew and the tasks that they performed. But the political leadership of the USSR at that time was apparently not interested in blowing up this incident. After clarifying the circumstances of the violation of the air border of the USSR, the crew of the C-118 aircraft was handed over to the US representatives at the Soviet-Iranian border. Secret CIA documents on the U-2 flight program only by chance did not fall into the hands of Soviet counterintelligence.

After this episode, when it turned out that the available instructions on actions against intruder aircraft were not clear enough, order No. 0049 of the USSR Ministry of Defense dated July 4, 1958 was issued, ordering to shoot down the violator if necessary.

Regarding this incident, there was also an exchange of notes between the USSR and the USA. The Soviet government in a note dated June 28, 1958 (published in Izvestia on June 29) reported:
"June 27, 1958 at 18.30 (Moscow time) 4-engine military aircraft with US Air Force identification marks

violated the state border of the USSR in the area south of the city of Yerevan and deepened into the airspace of the USSR up to 170 kilometers. He did not obey the signals of 2 fighters to follow them. The fighter jets forced the plane to land. He landed 240 kilometers from the place of violation of the border and burned down. Nine people dressed in the uniform of the US Air Force - all US Air Force personnel - are on the territory of the USSR. There has been an intentional violation. The Soviet government demands that the United States take effective measures to prevent violations of the air borders of the USSR.

On June 30, the US government sent a memorandum (Izvestia, July 4) with the following content: "The DC-6 military transport aircraft was flying from Wiesbaden (Germany) to Tehran . .) at 13.20. The weather was cloudy, mountains. The plane got lost. The violation was unintentional. Request to return the crew and the plane, if possible, or the remaining parts of it."

On July 4, the USSR government explained to the US government that the intentional violation was that the plane did not obey the signals of the fighters.

4 days later, on July 8, Izvestia published the following information: "On July 7, 1958, in the city of Astara, the crew of an American military aircraft that violated the border of the USSR on June 27, 1958 in the area south of Yerevan was handed over to the representative of the US Army." Next was the crew list.
It would seem that everything ended in the best way. But 2 months later, on September 2, a new incident occurred in the same area. Once again, an American S-130 reconnaissance aircraft ended up in the airspace of the USSR. Here is what the commander of the air defense corps, in the zone of which the S-130 was shot down, General V.D. Sozinov (we worked with him at the headquarters of Kim Il Sung during the Korean War) and the pilot who shot down the plane, Viktor Lopatkov, told. Four MiG-17 fighters were raised to intercept an American intelligence officer. Two interceptors to the left and right of the

gave him a signal: "Follow us." He left them to the border at a speed of 300 *km / h.* The leading fighter of the second pair, Senior Lieutenant Lopatkov, after a warning burst, to which the intruder did not respond, opened fire to kill. The plane, engulfed in flames, fell to the ground. It continued to burn for about two more hours. It was not possible to approach the plane. General Sozinov posted guards to avoid

casualties among the population. All measures were taken to extinguish the fire. All 17 people aboard the C-130 were killed. A few days later, the remains of seven bodies were handed over to the Americans. Of these, only four were identified. (Thirty-five years later, the Russian-American commission on prisoners of war and the missing, of which the author of the book was also a member, once again investigated this incident. Excavations were made, a television film was made. All the data of 1958 were confirmed: the crew died.)

Here is what the Commander-in-Chief of the Land Forces Marshal of the Soviet Union I.S. Konev and the Commander-in-Chief of the Air Defense Forces of the country Marshal of the Soviet Union S.S. Biryuzov reported to the Central Committee of the CPSU in 1958:

"On September 2, 1958, at 15:06, the state
the border of the USSR in the area of 15 kilometers southwest of Leninakan.

An intruder aircraft at an altitude of up to 10,000 meters at a speed of 650-720 *km / h from Turkey deepened into the territory of the USSR up to 45 kilometers. The raised fighter pilot Senior Lieutenant Lopatkov intercepted the intruder at 15.10 and shot him down at 15.12.*

According to the pilot's preliminary report, the four-engine aircraft
the intruder had American insignia.
A burning plane fell on our territory in the Mastara region, 20 kilometers southeast of Leninakan. Measures have been taken to find the downed aircraft. A detailed report will be presented later."

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A TASS statement appeared in the Soviet press:

"The US Department of State published a statement regarding a US Air Force aircraft that violated the USSR state border on September 2, 1958 and crashed near the city of Yerevan. This statement claims that the said American military aircraft was allegedly "intercepted and attacked by Soviet fighters in the area of the Soviet-Turkish border, near Kars (Turkey), which caused its death in Soviet Armenia." In order to confirm these provocative speculations, the State Department refers to a "recording" fabricated by American intelligence of radio communications between Soviet fighter pilots who allegedly participated in the attack on an American aircraft <...> "

The details of the air incident, which were investigated by a special commission created on this occasion, were set out in the "Act of Investigation ...", presented by the Acting Commander of the Transcaucasian Military District, Lieutenant General Ivan Pavlovsky, to the Commander-in-Chief of the Air Defense Forces of the country, Marshal of the Soviet Union S. S. Biryuzov. It said:

"On September 2, 1958, at 14:32 in Turkey, 50 kilometers south of Rize, air target number 7845 was detected by the radar of the Transcaucasian Air Defense Corps - a single foreign aircraft at an altitude of 7500 meters. From the specified area, the target proceeded in a northeast direction, 20 kilometers south of Batumi, turned around and, with a climb, began to fly along the state border of the USSR<...>

At 15:06, a foreign aircraft at an altitude of 10,000 meters violated the state border in the region of 20 kilometers south of Leninakan, and following a course of 120 degrees, deepened into the territory of the USSR up to 45 kilometers.
When fighters approached a foreign aircraft, the latter, with a sharp descent and a turn to the right, began to move towards the state border. The leader of the first pair of fighters, Senior Lieutenant L <... > ov,

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went to the foreign aircraft and gave two warning bursts of fire, to which he did not react and continued to descend in the direction of the state border. After that, guided by the order of the Ministry of Defense of the USSR number 0049 dated July 4, 1958, at the command of the Acting Commander of the Air Force, the intruder was attacked by fighters, which sequentially made one or two attacks. As a result of fighter attacks, the intruder caught fire, began to collapse and crashed in the area <...> 44 kilometers south of the city of Leninakan.

By a personal inspection at the crash site, the commission established:
- according to identification marks, plates on the units and photographs from a photo machine gun, the intruder aircraft is a US Air Force military transport aircraft of the C-130A Hercules type. <...>;
- burnt and deformed remains were found on the plane equipment for reconnaissance of radio equipment <...>;
- at the crash site of the plane, the charred remains of 7 human bodies were found. <... > It is possible that, in addition to the seven identified corpses, there were others, but they were completely burned or mixed with others <...> "so .
The commission came to the following conclusions: *“1. The US Air Force C-130A aircraft, tail number 60528 deliberately violated the state border of the USSR and carried out a reconnaissance flight over the territory of the Soviet Union, as evidenced by the presence of reconnaissance radio equipment on board the aircraft, the route of the aircraft along the Soviet border and its invasion into the Soviet Union, as well as the presence of an order to carry out an operational task.*

2. The presence of a good linear landmark - p. Aria-Chay with a canyon marking the state border, and other well-visible large area landmarks and good visual visibility at the time of violation, in the presence of modern radio navigation equipment on board the aircraft, completely eliminates unintentional

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violation of the state border of the USSR by the specified foreign
by plane.
3. The actions of the command of the 236th IAD and 29th RTP of the air defense during the interception of a foreign intruder aircraft were correct and met the requirements of orders for the protection of the air borders of the USSR"51
After these two incidents, American electronic reconnaissance aircraft became more cautious when flying along Soviet borders, but U-2 operations continued. Pilots of high-altitude reconnaissance aircraft increasingly delivered aerial photographs to the CIA and the Strategic Air Command, revealing the high rate of saturation of the Soviet Air Force and Air Defense units with new military equipment and electronic equipment. Indeed, at the end of the 50s, P 30 radar stations began to enter service with the air defense forces, detecting air targets at altitudes above 20 kilometers; since 1959, the air regiments have been armed with T-3 high-altitude interceptors with supersonic speed and a ceiling of over 20 kilometers; A very effective S-75 missile system appeared in the anti-aircraft missile forces with a range of 30 kilometers and a target engagement height of 25 kilometers at a target speed of up to 1500 km / h.

The decisive stage of the undeclared "air war" was the spring of 1960. By this time a number of significant events had taken place. In September 1959, N. S. Khrushchev was on a visit to the United States. For 12 days, he met with President D. Eisehower, top political and statesmen,

prominent economists, high-ranking military officers, as well as
representatives of all walks of life in American society. The visit was held in an atmosphere of consent and friendliness. The joint Soviet-American communiqué, in particular, stated: "... The Chairman of the Council of Ministers of the USSR and the President of the United States agreed that all outstanding international issues should be resolved not through the use of force, but by peaceful means, through negotiations"52 .

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During the visit, Khrushchev and Eisenhower had several confidential face-to-face conversations. As it became known later, they discussed the state of Soviet-Chinese relations, the question of Berlin, and the problems of mutual reduction of armaments. But Khrushchev never touched on the delicate issue of high-altitude flights by American planes over the territory of the USSR. The President of the United States was invited to visit the USSR in 1960. The improvement in Soviet-American relations also affected the general international climate: a meeting of the heads of government—the United States, the USSR, Britain, and France—was scheduled for May 16, 1960. The meeting was supposed to resolve many differences between the West and BOCTOKOM.

It seemed that international detente was approaching. But the events that took place in April-May upset the hopes of the world community. And at the center of these events were reconnaissance flights of U-2 aircraft.

At the beginning of 1960, the Soviet government announced that a new type of armed forces had been created in the USSR - the Strategic Rocket Forces. This message poured new wine into old wineskins: the high-altitude reconnaissance operations of the American intelligence services resumed. Where are the strategic missiles of the USSR deployed? What samples are adopted? What are their combat capabilities and numbers? These questions worried the Pentagon and boiled down, in essence, to one thing: to what extent the air defense of the USSR is capable of counteracting modern American strategic aviation —
foundations of US military power? New U-2 intrusions into Soviet airspace were supposed to answer this question.

On April 9, 1960, at 4:47 a.m., the Soviet radar stations of the Turkestan military district detected an air target. According to the first reports, the target was in the airspace of the USSR, 430 kilometers south of the city of Andijan, at a distance of 250 kilometers from the Soviet-Afghan border. Following at an altitude of 19-21 kilometers, U-2

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at a speed of 780 km / h was moving towards Semipalatinsk. Having reached the Semipalatinsk nuclear test site, the reconnaissance aircraft made several tacks over it (our radars were steadily targeting); then flew to the area of Lake Balkhash, where the range of anti-aircraft missile forces - Sary-Shagan was located, and from there proceeded to the range of strategic missiles - Tyuratam and through the city of Mary went to Iran. The entire flight lasted over 6 hours.

How did it happen that the intruder, which had been in the Soviet sky for such a long time, was not destroyed, although, as already mentioned, both the Air Defense Forces and the Air Force had forces and means capable of shooting down this U-2?

What happened that day was like a theater of the absurd. When the intruder aircraft was approaching Semipalatinsk, at the airfield of the air defense fighter aviation regiment closest to the Semipalatinsk test site, there were two T-3 aircraft equipped with air-to-air missiles, and pilots who had some experience in flying these fighters. But, in order to intercept, they needed to land at another airfield, since there would not be enough fuel to return to their own airfield. AND

such an airfield was at the Semipalatinsk test site. But the secrecy regime did not allow pilots who did not have special permits to land on it, and the T-3 pilots V. Nazarov and B. Starovoitov did not have such permits. The intruder plane was tackling over a top-secret training ground, and the Soviet aces were waiting for the results of negotiations between the command of the country's Air Defense Forces and the government of the USSR on obtaining the notorious permits. Only at 7 o'clock Moscow time was permission to take off received, but it was already too late. When the T-3 fighters arrived in the Semipalatinsk area, the U-2 was already out of reach: it was flying towards another secret object - Sary-Shagan. The command of the air defense forces had hope: after all, there, in Sary-Shagan, the latest S-75 anti-aircraft missile system was deployed, the performance characteristics of which made it possible to hit targets at such a height. But by chance, the U-2 again escaped the threat of destruction. Shooting was not planned that day,

and there were no missiles in position. And the technical site where they were stored was 100 kilometers from the position of the air defense system. But even there there were no missiles prepared for combat use. Emergency measures were taken, and soon the equipped missiles were already being transferred to the combat position, but the U-2, having finished photographing the Sary-Shagan training ground, was heading towards the Tyuratam training ground. By this time, significant air defense and air force forces were brought to the highest degree of combat readiness. But military happiness did not accompany Soviet aviators that day. The enemy scout was already over Tyuratam, and having completed the task, he left through Mary towards the Iranian border. The nearest air regiment of the Air Force had T-3 fighters, but the pilots had no experience of flying on this aircraft, and besides, there were no air-to-air missiles: they had not yet arrived at the warehouse. And yet, the T-3 of Senior Lieutenant Kudeli took off with missiles from the MIG-19. But since the U-2 was already at a considerable distance, control of the interceptor was transferred to the command post of another division, where they had no experience in controlling high-altitude aircraft: targeting did not take place. Another pilot, Captain Doroshenko, on a T-3 climbed to a height of 17,500 meters and saw an enemy scout, but ... 3 kilometers higher than himself. The pilot, in fact, just mastering the new aircraft, could not rise higher. Thus ended this day full of absurd and dramatic events.

To investigate the reasons for the unsuccessful actions of the air defense forces against the aircraft violating the airspace of the USSR, a commission was appointed, which included the author of these lines, who at that time served in the General Headquarters of the Air Defense Forces of the country. Serious shortcomings were revealed in combat training and command and control of the forces and means of the air defense and air force. I remember that during the analysis of the events of that day, considerable omissions were discovered in the work of radio and radio equipment. In particular, radio reconnaissance in Transcaucasia revealed the flight of U-2 and S-130 from Adana (Turkey) to Peshawar (Pakistan) a few days before the reconnaissance flight, however, these data are due to

a number of accidents were not reported to the command. Truly fate pursued our air defense that day."

Many generals and officers received severe penalties. Khrushchev was outraged: reality overturned his repeated statements about the high degree of combat readiness of the Soviet Army. The probable routes of the expected new U-2 flights were predicted at the Main Headquarters of the Air Defense Forces of the country (the author took part in their development). Yes, the lesson on April 9 was hard. But he didn't go in vain. Lessons learned from failure soon led to success. It happened three weeks later, on May 1, 1960. Pilot Francis Gary Powers,

who was destined to make a fatal flight for the entire U-2 program on May 1,

was one of the most experienced pilots of Richard Bissell's team. He flew the U-2 from 1956. Now, to carry out the next combat mission, he arrived in Peshawar from Turkey on April 27. It was known that President Eisenhower had ordered the flight to take place on April 28th. However, due to bad weather in the areas of the proposed route, A. Dulles asked the president to postpone the flight for several days. He agreed, but on the condition that the task would be carried out no later than May 1. Eisenhower did not want to receive any new protests from the Soviet Union on the eve of the "summit" scheduled for May 16 in Paris. The fact that the U-2 plane could be shot down was not even thought in Washington. Both the president and his entourage were sure that in the worst case, the plane would explode and the pilot would die.

But all the last days of April the weather did not improve, and the deadline was already approaching. Powers and his superiors were nervous. Finally, on the first day of May, weather conditions made it possible to carry out the planned reconnaissance operation.
There were only a few hours left before the start of the May Day parade, when a high-altitude target was discovered southeast of Kirovabad of the Tajik SSR. It was a U-2 piloted by Francis Gary Powers. He had the task of flying over the territory of the USSR at the maximum height

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on the route: Peshawar (Pakistan), Aral Sea, Sverdlovsk, Kirov, Plesetsk and land at the Bude airfield (Norway). Flying over the points indicated on a special map, the pilot had to turn on the equipment for aerial photography and fixing the work of Soviet radars.

... The alarm signal, according to which the officers of the Main Staff of the Air Defense Forces of the country were supposed to arrive at the command post, was immediately reported to them by phone before 6 in the morning. The first notches of a high-altitude target approaching the border of the Soviet Union in the area south of the city of Dushanbe (it flew straight north at an altitude of more than 19 kilometers at a speed of 750 km / h) were obtained at 5 hours 36 minutes (Moscow time). The CP general on duty immediately reported the violation Commander-in-Chief of the Air Defense Forces of the country Marshal of the Soviet Union S. S. Biryuzov, his first deputy Marshal of Artillery N. D. Yakovlev, Chief of the General Staff General P. K. Demidov, commander of fighter aviation General E. Ya. Savitsky and anti-aircraft missile forces General K. P. Kazakov.

When, at the beginning of the seventh, the entire command of the Air Defense Forces of the country and we, the officers who were part of the combat crew, took their jobs at the Central Command Post (at that time it was located in the courtyard of the house number 3 of the Ministry of Defense on Frunzenskaya Embankment), the situation was quite nervous. It must not be forgotten that it was the morning of the First of May. At 10:00 a.m., a parade was to begin on Red Square, followed by a demonstration. The leadership of the party, government and the Soviet Armed Forces, including S. S. Biryuzov, was supposed to be on the podium of the Mausoleum.

By 8:00 a.m., the command post of the Air Defense Forces of the country concluded that the flight route would pass through the Sverdlovsk region, then to the White Sea, and the landing airfield would probably be in Norway.
From the ground, the unidentified plane is being closely monitored. The nerves of everyone who is at the airfields, missile positions

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yakh, command posts, headquarters of the Air Defense Forces of the country and the Air Force, at the limit. The flight has already been reported to the Minister of Defense, members of the Politburo, N. S. Khrushchev.

Phone calls from the Minister of Defense Marshal of the Soviet Union R. Ya. Malinovsky from the Kremlin and personally from N. S. Khrushchev follow one after another. Their tone was approximately as follows: "Shame! The country provided air defense

everything you need, but you can't shoot down a subsonic plane ... " Marshal Biryuzov emotionally retorts this: "If I could become a rocket, I would fly myself and shoot down this damned violator ...".

As often happens at critical moments, various accidents prevent him from being knocked down on one or the other section of the path. Either the missile battalion, whose zone it touches, is not on combat duty that day, then the route passes outside the shelling zone or in such an alignment when a missile launch is impossible. Fighters don't get it at all. All necessary means of radar and radio reconnaissance are included. But the plane is silent. Apparently, he does not use long-range radio communications. In connection with the rise into the air of several pairs of fighters and the need to clear the sky from other aircraft, a signal is given to land on the nearest airfields of all aircraft not involved in the fight against the intruder. This allows radar stations to more reliably guide a target already flying at an altitude of more than 21 kilometers at a speed of 750-800 km / h.

Khrushchev demands to shoot down the plane at any cost. Calls from the government now and then are heard in the tense atmosphere of the Central Command Post of the country's Air Defense Forces. Still would! On the day of the national holiday, two weeks before the Paris summit meeting, a foreign reconnaissance plane flies in the sky of the USSR! Khrushchev and his entourage regarded this as a political provocation. And what is the U-2 - it was already known to Soviet intelligence.

Meanwhile, an American reconnaissance plane is steadily heading north: here it passes Tyuratam, flies along the Aral Sea, passes Magnitogorsk,
Chelyabinsk.

The intruder could only be shot down by high-altitude interceptors or anti-aircraft missiles, but for this it was necessary that the U-2 flew through areas where such means were available. Powers was approaching Sverdlovsk. From the Koltsovo airfield (Sverdlovsk), a high-altitude T-3 fighter went to intercept, accidentally appearing there during the transfer of the aircraft from the factory to the unit. Its pilot, Captain Igor Mentyukov, did not have a compensating high-altitude suit, an oxygen mask, and the aircraft was not armed. The pilot receives the task of approaching the intruder and ramming him. The risk was enormous, the chances of success negligible. After all, it was necessary to precisely aim a high-speed supersonic fighter at a target moving at subsonic speed, and do this in a matter of seconds, since the T-3 could not operate longer at the maximum height. Mentyukov gained the desired height, but did not see the target: the guidance did not take place.

Here is how the pilot himself later spoke about it:

"I turn around, leave the zone of fire, and *then ask about the location of the target. To me from the CP: "The target is behind." I take another turn, but I feel like I'm falling. After all, he was walking without afterburner, he did not notice how the speed dropped to 300 km / h. Fell down 15 thousand meters. And from the CP: "Turn on the afterburner." Evil took, I shout: "You need to know how and at what speeds it turns on." I dispersed the plane to 450 kilometers, I try to turn on the afterburner, although it turns on at 550 kilometers. At this time, the light bulb lights up - an emergency remaining fuel. It becomes clear - guidance failed. Give instructions -*
pull to Koltsovo.

(In 1998, however, he published an article in which he claimed that it was he who shot down Powers ...)

It is already nine o'clock in the morning, a military parade will soon begin on Red Square, and an unknown plane is flying through the center of the country. What will be the effect of demonstrations of Soviet military power when a reconnaissance aircraft flies with impunity over the country of socialism, and Soviet air defense is not able to bring it down? This

understood by everyone - from Khrushchev to the radar operators who monitored the flight.
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Meanwhile, the U-2 enters the zone of action of an anti-aircraft missile battalion near Sverdlovsk. The commander of the combat crew, the chief of staff of the division, Major M. Voronov (the commander was on a business trip), gives the order: "Destroy the target." The first rocket shoots up towards the intruder. It should be followed by the second and third. But they don't go off the rails. Why? There was an extremely rare case: the guidance cabin was between them and the target. The reason for the delay is quickly eliminated. Meanwhile, the first rocket explodes behind the U-2, and its fragments pierce the tail and wings without affecting the cockpit. It happened at 8:53 am. But the falling fragments of the U-2, fixed on the radar screen, are perceived as a target. For us, who was at the command post in Moscow on May 1, 1960, we remember the reports about the launch of the rocket and the message that the target "flashed", either using interference or falling apart. The anxiety didn't go away.

Meanwhile, there, in the sky near Sverdlovsk, Powers, realizing from a flash from behind and loss of control that he should leave the falling plane, was forced to drop the "lantern" and with difficulty, already at an altitude of less than 10 kilometers, got out of the cockpit. He could not use another way, since the explosion moved his seat forward and his legs were under the dashboard. During the ejection, his legs could be torn off. (This happened even with an undamaged aircraft in past years.) As he later recalled, his U-2, having lost its wings, fell vertically with its tail down. When he dropped the "lantern", gravity pressed him to the seat. Overcoming huge overloads, he tried to leave the falling plane, but was tied to the cockpit with oxygen hoses. Finally, he tore them apart and jumped out on a parachute. By this time, the height was already relatively small. As soon as he broke away from the aircraft, another missile hit the U-2 54 with a direct hit . When it fell, the fuselage, engine, wings and cockpit of the aircraft were scattered on the ground at a distance of several kilometers from each other.

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But no one in Sverdlovsk and Moscow knew about this yet. On the contrary, in the area disappearance of the intruder, the mark from the target reappeared.

Where did the new goal come from? But the fact was that after the unsuccessful guidance of I. Mentyukov to intercept the U-2, a couple more MIG-19 fighters were raised - Captain Boris Ayvazyan and Senior Lieutenant Sergei Safronov. Here is how B. Ayvazyan recalled these unforgettable moments:

“They took off. Powers above us, but where? I turn my head - there is no one around. In those seconds, I noticed an explosion and five dots going to the ground. Eh, guess then that it was a collapsing U-2. I mistook the explosion for the self-destruction of the rocket, and immediately reported to the command post. The Powers plane, of course, was not found, because the missilemen had already destroyed it. ”

But the missilemen and radar operators still mistook the U-2 wreckage for passive interference applied by the spy pilot. Therefore, for the Ayvazyan pair, the task was still the same: upon detection, attack the enemy. On the next bend, Ayvazyan recalled, the connection with the follower suddenly broke off. Sergei Safronov fell silent. Ayvazyan saw an unusual cloud in the clear sky and dived sharply. This saved his life.

In the division commanded by Major A. Shugaev, they perceived the mark that appeared from the fighters as an enemy target, which dropped to 11 thousand meters. In a matter of seconds, she was shot down (by order from the command post of the air defense army). Alas! It was the fighter of senior lieutenant S. Safronov, raised to intercept the U-2. Monitor screens cleared. There is a pause -

it became clear that the intruder had been shot down. In fact, it was already half an hour after Powers was shot down, but Major Voronov and his combat crew mistook the U-2 wreckage that clogged the screen for passive interference applied by a spy plane, and the major delayed his report until the situation was clarified.
Marshal Biryuzov picked up the government phone and reported to Khrushchev. Khrushchev expressed doubts, but said: "Come and report in detail." Biryuzov

immediately ordered a group of several air defense officers to fly to Sverdlovsk, sort everything out on the spot, ensure the safety of the aircraft wreckage and report details. He himself went to the Kremlin for the parade. "When the marshal arrived at Red Square, the podium at the Mausoleum was already filled with statesmen, military leaders, guests. His arrival did not go unnoticed. Unlike other military men, he was not in the front, but in everyday uniform and did not immediately take his place among the other generals, but first, right on the podium, he went up to Khrushchev and reported the result in his ear. He nodded with satisfaction. After that, Biryuzov took his place among

The departure of the special aircraft TU-104 to Sverdlovsk (Koltsovo airfield) took place at about 12:00. It was the first plane to take off from Vnukovo after the ban on civil aviation flights, introduced around 8 am on May 1. The plane was full. Groups of the apparatus of the Central Committee, military counterintelligence, the KGB, the General Staff and the Air Defense Forces of the country flew on it. All of them were members of the commission to investigate the incident.

Two hours later they were there. Powers was sent to Moscow. It remained to find and collect parts of the aircraft scattered over the fields and copses, take care of their protection, especially equipment and large, wide (24 cm) rolls of film footage. It was carefully wrapped in soldier's blankets, which then helped to develop it almost without loss and make sure how important objects and with what high quality were photographed. The engine was found in a swamp and was hardly lifted with a crane.

There was also such an incident: in one of the nearby villages, where the people celebrated May 1 in the Ural style with a common feast, after the explosions of rockets and the fall of the plane of the downed plane, people began to beat it with crowbars, spilling the fuel inside, which was of great interest to military experts.
Having ensured the collection, preservation and shipment to Moscow of all the remnants of the U-2, the air defense group returned to the capital to

prepare an exhibition of trophies in the Gorky Park of Culture and Leisure.

The commission compiled the first report on the performance data and equipment of the aircraft, the goals and objectives that it solved during reconnaissance flights. An investigation into the Powers case has begun.

It was established that the U-2 had a wide-angle long-focus aerial camera "73-V" on board. He carried out seven-route photography
successively through seven glazed hatches. This ensured the capture of an area 160-200 kilometers wide, the length of the photographed strip was 3,500 kilometers. A lens with a focal length of 915-944.7 millimeters made it possible to take pictures at a scale of 220-230 meters per centimeter from high altitudes. With the help of electronic reconnaissance equipment installed on the aircraft, it was possible to obtain information about the radio-technical support systems for the air defense of the USSR.

In Washington, R. Bissell and others involved in the U-2 program racked their brains over the disappearance of Powers. The silence of Moscow was surprising: no

information. Two days later, on May 3, the NASA message, fabricated by the CIA and secretly approved by the president, was released. The report said that since 1956, NASA has been using Lockheed aircraft - U-2 under the program for studying the meteorological conditions of the upper atmosphere; one of these aircraft, which was on a mission on May 1, 1968 in Turkish airspace, went missing at about 9 a.m. - it may have crashed in the Lake Van area: the pilot who took off from the Adana airfield, while in the region of Eastern Turkey, reported, they say, about malfunctioning oxygen equipment.

This message appeared in the newspapers on May 4, but did not attract much attention. The CIA leadership was anxiously waiting for the reaction of the USSR to the message, but Moscow remained silent. At a press conference in Washington, NASA representatives did not give any intelligible answers to journalists' questions.

The next day, a regular session of the Supreme Soviet of the USSR opened in Moscow. Khrushchev, in his report on it, published the details of the incident with the reconnaissance aircraft, but kept silent about the fact that the pilot was alive, and parts of the aircraft and equipment allow us to draw conclusions about the nature of the tasks that he performed.

On the same day, a representative of the US State Department spoke to reporters with a statement in which the version of NASA was repeated, supplemented, however, by the fact that the aircraft, which was carrying out a research flight under the NASA program, in all likelihood, accidentally crossed the Soviet-Turkish border and ended up within the USSR .

A little over an hour after the State Department announcement, the head of NASA's information department again came forward with a clarifying statement that the U-2 had cameras for photographing clouds, that it was an unarmed civilian aircraft. He also said that if anything is known about this plane in the USSR, he asks the Russians to report it so as not to extend search.

But at the time when Washington was trying to cover up Powers' mission, a signal came from the American embassy in Moscow that rejected all false versions. It produced the effect of an exploding bomb. The fact is that on the evening of May 5, at a reception at the Ethiopian Embassy in Moscow, US Ambassador L. Thompson accidentally overheard a conversation between Deputy Foreign Minister USSR J. Malik and the Swedish ambassador. The Swede asked how the USSR government would qualify the U-2 incident. "I don't know," Malik said, "the pilot is still being interrogated." "Interrogations of the pilot ..." - these words struck Thompson like lightning. He rushed to his embassy and gave a telephone message marked "Out of Queue" to Washington. She was 4 minutes late: NASA's second statement had already been released to the press .

The statements made in Washington only added fuel to the fire. On May 7, Khrushchev again spoke to the deputies and said that the pilot was alive and in the USSR, American official circles recognized the fact

deliberate intrusion into the airspace of the Soviet Union. President D. Eisenhower confirmed at a press conference on May 11 that the flights of American reconnaissance aircraft over the territory of the USSR are one of the elements of the system for collecting information about the Soviet Union and have been carried out systematically for a number of years. He stated that he "ordered the collection, by any means possible, of information necessary to protect the United States and the free world from surprise attack and to enable them to make effective defense preparations." He also stated

that these measures are necessary because secrecy and secrets have become a fetish in the "Soviet Union." The next day, he gave the order to stop U-2 flights over the Soviet Union57 .

The U-2 incident had very serious consequences: the summit meeting scheduled for May 16 in Paris did not take place, although the heads of the governments of the USA, the USSR and Great Britain arrived in Paris; Eisenhower's visit to the USSR, scheduled for June 10, was canceled, and relations between the USSR and the United States deteriorated. As for the reconnaissance flights of American aircraft over the USSR, they were terminated.

Thus ended the first stage of the US attempts to "open the skies" over the Soviet Union, to penetrate the secrets of its weapons programs, carefully guarded during the unfolding competition in the military power of the two superpowers.

The fate of Powers himself is not without interest. It turned out quite tragically. In August 1960, for three days, an open trial was held in the Hall of Columns in Moscow, at which he was convicted by the Military Collegium of the Supreme Court of the USSR for 10 years ... His parents and wife Barbara were present at the trial. In February 1962, Powers was exchanged for illegal Soviet spy R. Abel arrested in the United States.

Upon his return to the United States, F. G. Powers divorced his wife in 1963 and married an employee the same year.

CIA Sue Downey, with whom he was previously associated in the service. The attitude of compatriots towards him at first was very negative. He was accused of not blowing up his plane after his defeat, did not commit suicide with a poison needle given to him, pleaded guilty at the trial.

However, the main thing that worried the CIA and the Pentagon leadership was the question at what height did the first missile hit Powers' plane. At the trial in Moscow (and earlier, during interrogations at the KGB), he said that this happened at an altitude of 68 thousand feet (about 20 thousand meters). Upon his return to the United States, he continued to assert the same thing, but added that he deliberately misled the Soviet investigation, emphasizing this height as the maximum for the U-2, although the true ceiling of the U-2 is 22 thousand meters. He said that he made such a confession to the Soviet court in order not to endanger his comrades, who were supposed to carry out reconnaissance missions after him58. However, military experts in the United States did not want to believe him. They referred to the fact that U-2 No. 360, on which he flew, was undergoing major repairs before his flight and was not as reliable as new aircraft, and therefore his instruments could give an error. Some colleagues of Powers claimed that in conversations with them, he called the height at which he was hit by a rocket equal to 45 thousand feet (15 thousand meters).

The designer of the U-2, K. Johnson, who specially came (incognito) to Moscow to look at the wreckage of the U-2 in Gorky Park, came to the conclusion that the plane was shot down at a lower altitude than Powers said. The height of the U-2's impact - 68,000 feet - was also questioned by the Senate commission, to which Powers testified59. This issue was discussed decades later at the U-2: An Intelligence Revolution conference held in Washington in 199860. The author of this book also took part in it. There I met Powers' widow, and even earlier, his son F. G. Powers during his visit to Moscow.

However, even then, in the 60s, the CIA soon issued a statement about the conscientious fulfillment by Powers of his duties in accordance with

contract and your duty as a US citizen. He was hired, rehabilitated in the eyes of public opinion. He received all the money owed to him by the CIA ($2,500 per month during his time in custody and $1,000 per month of service in the 10-10 unit from the summer of 1956 to May 1960, which were not received in accordance with the contract). In 1970 he wrote a book about his flight. The CIA leadership demanded to familiarize him with the manuscript. But the publisher was against it. After being turned down by Powers, the CIA was extremely dissatisfied with the content of this book after its publication. Powers had to resign from NASA, where he worked. Since 1971 he has worked for a television company in California.

Powers died on August 1, 1977 during a helicopter crash while flying in the Los Angeles area on official business, under rather strange (and still not completely established) circumstances. He did not live to be 48 years old. He was declared a distinguished veteran and, with the consent of US President Carter, was buried with due honors in the US capital Washington, at Arlington Cemetery, not far from the grave of President Kennedy...

After the international scandal caused by the Powers incident, the program of systematic reconnaissance flights over the USSR was terminated. But reconnaissance aircraft continued to carry out reconnaissance missions for the Soviet Armed Forces without violating the borders of the USSR, although this also happened.

So, on July 1, 1960, exactly two months after the failure of the Powers mission, in the Barents Sea, off the coast of the Kola Peninsula, a US Air Force reconnaissance aircraft RB-47 was shot down. There were six people on board. Having taken off from England, the plane entered the secret Boston Casper route leading to the Soviet border in the area of Cape Svyatoi Nos. At 17.28 RB-47 entered the air

space of the USSR. A few minutes later, a Soviet MIG-17 fighter approached him. Pilot Captain Vasily Polyakov gave the signal "follow me", but the RB-47 continued to move along its route. RB-47 co-pilot Captain Bruce Olmstead responded to Polyakov's warning shots with a 20mm cannon. The next minute, the two twin left engines of the reconnaissance aircraft were hit by Polyakov's burst. The plane lost control and began to fall into the sea. Navigator Captain John McCone and Olmsted ejected. After 6 hours they were rescued by a Soviet trawler. The corpse of the commander of the crew, Major Willard Palm, was also picked up. The rest of the crew died.

McCone and Olmsted were taken to Moscow. An investigation has begun. American pilots claimed that their plane did not violate the border of the USSR. However, according to Soviet radar data, the last part of its route passed over the territorial waters of the USSR. The American intelligence officers were awaiting trial. The corpse of Major Palm in a zinc coffin was sent to the United States. In October of the same year, a Soviet trawler picked up a piece of the RB-47 fuselage and the body of Major Eugene Poza, an operator of an intelligence radio station, in the Barents Sea. He was buried on Soviet territory. (With the formation in 1992 of the joint Russian-American Commission under the Presidents of Russia and the United States on prisoners of war and the missing, of which the author of the book is also a member, the search for the grave of Major Poza resumed and is ongoing to this day).

In this incident, the US government initially announced that the aircraft had a research mission, but further investigation established that the RB-47 was conducting electronic intelligence and was over the territorial waters of the USSR. In this regard, the head of the Soviet government stressed that the promises of the US administration to stop reconnaissance flights in the sky of the USSR "are not worth a penny." He warned the government

Great Britain, from where the plane took off,
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that such "aggressive actions could become dangerous for the British people. According to American data, the RB-47 was shot down over neutral waters. This idea was also suggested by the phrase in Khrushchev's statement that the plane went towards the sea and fell outside the borders of the USSR. But since U.S. intelligence agents flew around the USSR every day—a sharp U.S. reaction to this incident could complicate an already tense international situation.Moreover, when in August 1960 Presidential Security Adviser Gordon Gray suggested to Eisenhower that he provoke the hijacking of a Soviet aircraft or ship, regardless of its true location , declare him a "border trespasser" and launch an anti-Soviet propaganda campaign, the president rejected this proposal. * 1 Soon an American C-47 transport aircraft violated the border in the Kuril Islands.Mutual irritation grew.

But still, in January 1961, immediately after John F. Kennedy took office as president of the United States, two pilots of the downed RB-47 aircraft were handed over to the American authorities as a sign of the goodwill of the Soviet Union and its desire to improve relations with the United States under their new government.

Similar cases occurred in the future. For example, in August 1962, a U-2 flew over Sakhalin. The US responded to the Soviet note of protest with an official apology.
And although episodic violations of Soviet borders by American aircraft took place later, such a purposeful program of systematic aerial reconnaissance of the USSR, such as the U-2 flight program or the previous flights of reconnaissance aircraft RB-45, RB-47, Canberra, after the incident with Powers was gone. And the need for this with the advent of reconnaissance artificial satellites of the Earth (American "Midas", "Samos", "Ferret" and others) has disappeared. More advanced means of reconnaissance have supplanted aviation, although even today it plays a significant role.
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Thus ended the most intense and dramatic covert air war waged by the United States and the Soviet Union in a fierce competition for superiority in the latest weapons. But there were still more dangerous fights ahead ...

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CHAPTER VI

RUNNING TO ARMAGEDDON

In February 1960, returning from a visit to the USSR, US Representative to the UN Henry Cabot Lodge informed the US government that the Russians continued to lead the missile race. And although Khrushchev, in a private conversation with Lodge, said that in reality this was not the case, and the U-2 flights confirmed this, the hype continued in America about the "missile gap" of the United States from the Soviet Union . At that time, the US military-industrial complex was gaining strength and, together with the Department of Defense, demanded multibillion-dollar appropriations for orders for the latest types of weapons, and especially nuclear missiles. When the solid fuel program was approved in the White House in 1961

intercontinental Minuteman missiles, presidential advisers believed that the national security interests of the country did not require the adoption of such a number (950) Minuteman missiles. One of those days, President Kennedy and Secretary of Defense Robert McNamara had an interesting conversation.

What do you think, Bob? President Robert McNamaru asked, reporting him about the point of view of his advisers.

“Well, they are right.

“But why do we need nine hundred and fifty missiles then?”

“Because it's the smallest figure we can offer on Capitol Hill. Otherwise they will kill us there .

The minister was referring to the powerful agents of the military-industrial corporations in congress, which lobbied for orders for gun magnates.

The threatening growth of influence on political affairs in the state of military monopolies, closely associated with generals and congressmen representing the military-industrial circles, and the media controlled by them, began to frighten even major American politicians. Leaving the presidency in January 1961, D. Eisenhower, in his farewell message, drew attention to the fact that the influence of the military-industrial complex "economic, political and even spiritual is felt in every city, every state governor's residence, in every institution of the federal government." Pointing out the danger of such a policy, he emphasized that "in the activities of government, we must beware of the spread of unlimited influence of the military-industrial complex, whether it is carried out intentionally or spontaneously. The potential for a dangerous increase in the power of such a complex

exists and will exist" [3]. This is the president's warning Republican sounded very topical.

1. Strength test: Berlin and Cuba

In the early 60s, the most important goal of the American ruling class was the desire to maintain and, if possible, strengthen military superiority over the Soviet Union.

Union and the countries of the socialist camp in the new, changed conditions, when the strategic invulnerability of the United States has irrevocably become a thing of the past. American hardliners on the USSR made every effort to prevent or at least push back any possibility of the Soviet Union achieving parity in strategic weapons. At the end of 1979, speaking at the London Institute for Strategic Studies, H. Kissinger frankly admitted: "Our strategic doctrine was based to a very large extent, and perhaps even exclusively on our superior strategic power. The Soviet Union never relied on superior strategic power" 4 .

This recognition testifies to the fact that even in those years the statesmen who stood on America's captain's bridge knew that the achievements of scientific and technical thought in the USSR and the state of its armaments did not pose a serious threat to the United States. Nevertheless, the Pentagon was looking for "reliable" ways to destroy the Soviet state in the event of a nuclear war. The policy of

the Soviet leadership, which in every possible way emphasized the enormous combat capabilities of Soviet missile weapons. At the same time, in the second half of the 1950s, the USSR consistently reduced the troops and forces of the general fleet. 63 divisions and brigades, part of the military schools were disbanded, 375 ships were mothballed. Whereas in 1955 the Soviet Armed Forces numbered 5,763,000 men, by 1959 they were reduced by 2,140,000 men, and in 1960 a new reduction of 1,200 men was planned .

In the United States, this was seen as a growing threat of a nuclear missile war. It was believed that the USSR, which, like Tsarist Russia, had always relied on its ground forces, was now striving to achieve superiority over
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US in strategic nuclear missiles. For Americans, accustomed for centuries to the fact that their territory is invulnerable to any enemy, such a prospect looked very threatening. Moreover, Khrushchev did not skimp on advertising the Soviet nuclear missile power. In November 1959, for example, he declared: "We have now accumulated so many missiles, so many atomic and hydrogen warheads, that if we are attacked, we can wipe out all our potential adversaries from the face of the earth."

Such statements by the Russians frightened the American man in the street. Only a few people in the United States knew the true picture of the balance of nuclear missile forces, but, as mentioned above, they could not disclose this to the general public. Atomic bomb shelters began to be built in American cities, and atomic alarms were conducted in schools and universities. It was well known that missiles of that time, especially long-range missiles, had very low accuracy. This was offset by the power of the combat charge, which reached 10 megatons or more. Therefore, only large-area targets, and above all large cities, could be the target for strikes by such missiles.
megacities.
In this regard, McNamara in 1961 put forward the concept of "hostage cities". It provided for the announcement of certain cities in the USA and the USSR, which, in the event of a nuclear war, would be subjected to missile strikes. This measure was conceived as a kind of guarantee agreed with the Soviet Union and designed to keep the USSR from a nuclear missile attack on the United States. In 1962, the US Secretary of Defense put forward a new concept - "counterforces". It envisaged, as mentioned above, by a sudden strike to destroy the main part of the Soviet means of delivering nuclear weapons and deprive the USSR of the possibility of a retaliatory strike, and then by the threat of nuclear missile bombardment of Soviet cities and the destruction of the population "try to end the war on favorable terms for themselves." The first goal was now not the military-industrial and hell 411

administrative and political centers, and the positions of Soviet missiles, aviation airfields, air defense systems. Their destruction made cities defenseless.

Thus, the threat of strikes on cities and the mass destruction of civilians (which was the cornerstone of fascist views on the use of V-weapons in the 40s) was an integral part of Washington's new strategy. And although the stake on a sudden strike was covered with defensive phraseology, its frightening essence was so obvious that even the American theorists of nuclear war themselves recognized it. "The main difficulty with the idea of a counterforce strategy is," H. Kissinger wrote, "that it is almost impossible to reconcile it with taking up a position of strategic defense"6 . “The strategy of counterforce,” noted A. Waskow, “almost inevitably gives back

the advantage of the side that strikes first" 7. The assertion of the creators of the new strategy that it was directed mainly against the "military potential" of the enemy was also demagogic. The missiles of that time, with their still low accuracy, could not act accurately enough , reliably on compact targets, which were military facilities.For example, the Pola-ris missiles, installed on the first submarines and launched from a submerged position, according to American experts, due to their low accuracy were intended for strikes against large-area targets - According to Pentagon calculations, the assets of the American nuclear attack forces that survived the retaliatory strike were to destroy 25 percent of the enemy's population and 70 percent of its industry in the second strike.

D. Ellsberg, who was engaged in strategic planning at the Pentagon and drafted political directives for the Committee of the Chiefs of Staff, remarks on this:

“Our plans included in the event that US troops engaged in hostilities with Russian troops in any area of the globe, and regardless of how this happened, a full-scale nuclear strike on

To the Soviet Union with all the nuclear weapons at our disposal, and as quickly as possible, hitting all the cities in Russia and China, along with military targets. In other words, I saw in 1960 and 1961 war plans aimed at unleashing a general nuclear war by the United States and delivering a first nuclear strike on the USSR ... The Chiefs of Staff calculated that this could lead to 325 million dead in Russia and China ... And if you add a Russian retaliation strike, and a European weapons, we can talk about a war in which at least 500 million people will die. Such were the American plans for total annihilation.

The Soviet Union was not an angel either, although Khrushchev's threats were not intended to intimidate America, but to impress upon it that it, America, should not interfere in the sphere of interests of the Soviet Union.

The crises in the socialist camp that took place in 1956 (and the unrest and unrest earlier and later) repeatedly testified not only to the mistakes of the authorities, but also to the provocative role of the Western powers that supported the anti-Soviet and anti-socialist uprisings in the countries of Eastern Europe. And it is natural that in the confrontation in the bipolar world it caused a response from the opposite side.

At the end of the 1950s, the German problem became one of the most acute issues in relations between the two military-political blocs - NATO and the Warsaw Pact. The personal qualities of the leaders also played a significant role in this.
Eisenhower, Kennedy, and especially Khrushchev and Ulbricht, the leader of the GDR.

After the 1956 crises in the camp of the socialist community, the Soviet government and the leaders of the allied countries made every effort to strengthen the camp of socialism and increase the influence of the Soviet Union in the "third world".
In Europe, the main political irritant was the status of West Berlin. In the center of the German Democratic Republic (GDR) was a controlled

the powers of the anti-Hitler coalition, West Berlin is a showcase for the prosperity of the West, an advertisement for the Western way of life, very seductive for the Germans of the GDR. In addition, West Berlin was the focus of NATO intelligence services. All this was extremely nervously perceived by both the government of the GDR and the leadership of the USSR.

In this regard, the strengthening and retention of the GDR in the socialist community acquired paramount importance. All the more so as more and more signals were coming from the GDR that alarmed the Kremlin. Thus, on February 24, 1958, the Soviet embassy in Germany sent a message "On the situation in West Berlin" to Moscow. It said:

“For a number of years, West Berlin has served as the center of the subversive activities of the Western powers against the German Democratic Republic. It is in Berlin ... that an open struggle is taking place between the capitalist and socialist systems. West Berlin is used by the enemy to organize various kinds of political provocations and economic sabotage against the GDR, and also as a kind of propaganda showcase for the Western world. The German friends are faced with the task of neutralizing this activity ... by strengthening their own influence on this part of the city .

The embassy proceeded from the assumption that "the Berlin question can be solved independently of the settlement of the German problem as a whole by the gradual economic and political conquest of West Berlin" 10 . The embassy believed that despite the Potsdam agreements and other negotiations, the Berlin problem was considered by the West in isolation from all-European and all-German affairs.

An important fact that required the adoption of some radical measures was the increasing number of East Germans fleeing to West Berlin, with their movement to the countries of the capitalist world, most often to the FRG. Secretary of the Central Committee of the CPSU Yu. Andropov on August 21, 1958, in a report to members of the Central Committee of the Party said:

“Recently, the departure of the intelligentsia from the GDR to West Germany has increased significantly. The number of referrals has increased by 50% compared to the previous year. During the first six months of this year, 1,000 teachers, 518 doctors, 796 people from among the technical intelligentsia, as well as a number of prominent scientists and specialists left the republic. As can be seen from a number of German reports, the main reason for the departure of the intelligentsia to the West is that many organizations often treat knowledge workers incorrectly.

The way out of this situation was seen in the fact that the USSR increased the assistance of the Socialist Unity Party of Germany in strengthening the communist influence on the German intelligentsia. As a result, it was decided to "eliminate the occupation status" of Berlin. Khrushchev made a statement about this in the form ultimatum to the Western powers on November 27 of the same year: to negotiate a peace treaty with Germany within 6 months, otherwise the management of the Soviet zone of occupation will be transferred to the GDR, with which a peace treaty will be concluded, and the status of West Berlin will be liquidated.

The military representative in East Berlin, General Shalin, even before Khrushchev’s speech on the German question, informed the Central Committee of the CPSU on November 19, 1958: “There is an opinion that England and France, in the event of decisive actions by the governments of the USSR and the GDR, could agree to the withdrawal of troops from West Berlin, but The United States will oppose this . "

But the desired was clearly presented as reality. On December 14, 1958, in Paris, the foreign ministers of the three Western powers and the FRG reaffirmed "the determination of their governments to secure their positions and rights regarding Berlin." Two days later, the NATO Council on the Berlin issue, meeting urgently in the same place, stated:

"No state has the right to unilaterally break

international agreements. The actions of the Soviet Union regarding Berlin and its methods are destroying the trust between nations, which forms the basis of peace
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*The demands of the Soviet Union have created a serious situation that needs resolutely oppose *12 .*

The key role in the further development of the crisis was played by the leadership of the Socialist Unity Party of Germany and personally by Walter Ulbricht, who was afraid of "excessive rapprochement" between Moscow and the FRG. Soviet Ambassador M. Pervukhin, after a conversation with Ulbricht on December 5, 1958, reported to Moscow:

"IN. Ulbricht said that the GDR would continue its active struggle against Bonn, both politically and economically... imperialism. This moment will be given decisive importance in the policy of the GDR in the future .

In a conversation with the Soviet ambassador, Ulbricht said that the present moment is a turning point in the issue of recognition of the GDR. “Until now, the population of West Germany believed that the GDR would one day be annexed to the FRG. Now this view is changing. In addition, Ulbricht told the Soviet ambassador that he "has documents in which NATO's aggressive plans are outlined, which provides for the possibility of advancing West German troops to the Oder." This pressure by Ulbricht on Moscow, inciting fears both among the Soviet leadership and its own people, pursued the quite obvious goals of preserving the GDR as a sovereign state, strengthening the internal position of the GDR and the SED.

Meanwhile, the flight to the West through Berlin intensified. "Last year, more than 90% of all refugees went through West Berlin, while in 1957 - less than 44%, the embassy reported. - The population of the GDR from 1950 to 1958 decreased by 997.5 thousand people "15 .
The inability of the East Berlin authorities to determine the true causes of the 416 deployments was increasingly revealed.

failed events. On September 15, 1959, A. Neumann, member of the Politburo and Secretary of the SED Central Committee, told Counsellor-Envoy V.V. on the territory of the GDR to prevent this process .

Neither East Berlin nor Moscow found politically flexible enough ways out of the emerging critical situation. A purely ideological conclusion was made: "to stop the imperialists" in Germany, Berlin. The idea of a wall in Berlin, which would prevent the flow of refugees, was hatched in the second half of the 50s in East Berlin and in Moscow. But only at a meeting of the Political Advisory Committee of the Department of Internal Affairs on August 3-5, 1961, it was formalized. Ulbricht demanded radical solutions. Khrushchev hesitated. He wanted more flexible approaches, but combined with pressure on the West. He, as mentioned above, already presented an ultimatum to the Western powers on November 27, 1958: to leave West Berlin within 6 months in order to make it a free city, but in fact subordinate to the GDR. Khrushchev’s conversation with Kennedy during their first meeting in Vienna in July 1961 is typical. Khrushchev declared: “A peace treaty with the GDR with all the consequences

hence, the consequences will be signed by December of this year." "If this is so, then a cold winter will come," was the answer of the President of the United States .
The heads of the superpowers parted coldly. And the chance that the meeting in Vienna gave to normalize relations between the USSR and the USA to warm the political climate in the world was missed. Khrushchev underestimated Kennedy's firmness and will, believing that with a young president a policy of pressure was possible. He put the American president before a choice: either jointly sign an agreement recognizing the existence of two German states (GDR and FRG) "or the USSR will sign a separate agreement with the GDR no later than December 1961, after

whereby the occupation rights of the Western powers in Berlin and free access to the city will cease, and communications with West Berlin will be controlled by the government of East Germany.

This approach alarmed Kennedy. Khrushchev used the same bluff that worked during the Suez crisis, but now he did not take into account the character of Kennedy. Khrushchev, like the entire Politburo, was not going to enter into a confrontation with the United States, let alone get involved in a war with them over Germany. But his ostentatious assertiveness and determination, with which he wanted to force Kennedy to accept his conditions, had the opposite effect: Kennedy, upon his return, began to prepare for the adoption of military countermeasures.

Despite the negative attitude of the Americans to the change in the status of West Berlin and the conclusion of a peace treaty with two German states, Khrushchev did not back down from the idea of \u200b\u200bcutting off West Berlin from East Berlin with a reliable barrier. He believed that if "all entrances and exits" leading to the West were "closed", then East Germans would work better, the economy would improve and reach such a level that, with social guarantees for workers in the GDR, it would even become attractive to Western
Germans.

However, it was necessary to somehow warn the United States and Britain, France and the FRG about the intentions of the Warsaw Pact in relation to West Berlin. On August 7, Khrushchev spoke on Moscow television. Regarding the question of Berlin, he said that there was no thought of a blockade of the western part of the city, but said that the planned reduction of the armed forces would be canceled, and moreover, an additional conscription of reservists into the army and the redeployment of a number of divisions from the interior of the country to the western borders were planned. It was a warning. On the night of August 12-13, 1961, the infamous wall was erected between East and West Berlin.
The Kremlin anxiously awaited the reaction of the United States. But nothing bad happened. On August 13, several American jeeps toured the East Ber

line. They were let through without hindrance, although during the trip they were accompanied by cars of the security services of the USSR and the GDR. Soon the assessment of the events by the American president became known. He said that "the Ulbricht regime, in all likelihood, has the legal right to close its borders, and no one can imagine that we should go to war because of this" 18 .

It must be said that only very few people knew about this statement by Kennedy. As for official Washington, its reaction was stormy. US Vice President L. Johnson arrived in West Berlin. He stated that the protection of the inhabitants of the city is a matter of "sacred honor" by the people of the United States. The garrison of American troops in the city was increased by 1,500 men. The general in command of the American forces in Germany and Dean Acheson, the former head of the State Department, demanded the use of force. In the USA were brought to

increased readiness of the tactical aviation unit, the call-up of more than 75 thousand reservists was announced. Similar measures were taken in England.

The Berlin crisis reached its peak on 28 October. On this day, the Americans planned an action to destroy part of the wall at one of the checkpoints. For its implementation, several jeeps with infantry and journalists, bulldozers and several tanks were involved. The attracted forces were lined up in battle formation: jeeps were in front, followed by bulldozers, which were supposed to destroy the barriers, and ten tanks closed the column. It was believed that the German border guards would not dare to shoot at the column of the army, the winner in World War II.

However, the Soviet command learned in advance about the impending operation. It was decided to take countermeasures. On the night before the action, a tank regiment and a rifle battalion were hidden in the alleys adjacent to the checkpoint. Early in the morning, three jeeps approached the checkpoint at the Brandenburg Gate, bulldozers rumbled behind them, covered by tanks with Zak 419

dug hatches and uncovered guns. The jeeps were allowed into East Berlin without hindrance. But when the bulldozers approached the checkpoint, Soviet tanks came out of the adjacent lanes and began to turn around towards the bulldozers. The roar of the engines was repeatedly amplified by speakers placed on the roofs of buildings. The bulldozers stopped short of the checkpoint. Soviet tanks stood in their own half of the street. Behind them were visible vehicles with infantry. Jeeps entering East Berlin were surrounded by the GDR police. They turned around and headed back. Nobody hindered them. Bulldozers and tanks from both sides were facing each other. The engines were off. The confrontation continued until evening. With the onset of darkness, the Soviet units were ordered to retreat to the same lanes where they had concentrated in the morning. 20 minutes after the roar of the engines on the east side of the checkpoint had died down, the American column turned around and moved deep into West Berlin. The incident is over. After him, tensions in Berlin began to subside, but Soviet-American relations continued to deteriorate.

This was facilitated not only by the Berlin crisis. The struggle for the "Third World" continued in very sharp forms, and the competition between the superpowers in the field of nuclear missile weapons was gaining momentum. The adoption in the United States of the "flexible response" strategy in the same year of 1961 and the high rate of commissioning of strategic missiles, both land and sea, were painfully perceived by the leadership of the Soviet Union.

Cuba was another bone of contention. After the victory of the revolution in Cuba in 1959, the anti-imperialist, anti-American regime of F. Castro, established on the island, brought the Cuban government closer to the Kremlin and provided it with comprehensive assistance from the USSR. This caused growing irritation in Washington, where they regarded F. Castro's proclaimed
building socialism in Cuba and its rapprochement with the USSR as a threat to US national interests. In April 1961 Cuban

Russian emigrants who settled in the United States, with the help of the Pentagon, tried to organize an intervention in Cuba, but were defeated by Castro's revolutionary troops. After the failure of the armed invasion of Cuba, the United States organized an economic blockade of Cuba, conducted large-scale exercises nearby, and in every possible way demonstrated a military threat to the "Island of Freedom".

Speaking at the XXII Congress of the CPSU in October 1961, Khrushchev

stated that "in a situation of aggravation of the international situation," the Soviet government "was forced to suspend the reduction of the armed forces planned for 1961, increase defense spending, postpone the transfer of soldiers and sailors to the reserve, and resume testing new, more powerful types of weapons"19. Just in 1961, as already mentioned, the USSR, after a three-year break, resumed nuclear tests on Novaya Zemlya: launches of strategic missiles with nuclear charges were carried out.

The aggravation of relations between the superpowers, the failure of the Vienna meeting between Khrushchev and Kennedy, after which Khrushchev stepped up political propaganda pressure on the United States, and Kennedy, perceiving Khrushchev's declarations as a real threat and the USSR's readiness to go to a global war, led both leaders to decisive action. The United States began to rapidly deploy the medium-range missiles "Thor" and "Jupiter" in a number of European countries (England, Italy, Turkey). This seriously changed the ratio of nuclear missile strategic forces between the opposing blocs.
The deployment of the Thor and Jupiter missiles (range - 3,500 km) on the bases of Europe gave Washington a number of advantages in the event of a general nuclear war. Before the deployment of American medium-range missiles in Europe, the USA and the USSR, having intercontinental missiles on their territories, were in an equal position (the flight time of an ICBM to enemy territory was 30 minutes, the warning time of a missile launch was 15 minutes). This meant that there would be a counter-strike, since each

of the parties, in the event that it is subjected to a missile attack, has the opportunity to launch its missiles at enemy targets before its missiles reach the designated targets. There was a principle: "you die first, and I die second."

Now, with the advent of the Thor and Jupiter missiles in Europe, the situation was changing. American missiles, starting from England, Italy, Turkey, could hit targets on the territory of the USSR and the Warsaw Pact countries in 10-12 minutes, i.e. before they could be detected by the radio systems of these countries. Thus, the factor of surprise increased. In addition, by hitting selected targets on enemy territory from shorter distances, the Americans could hit them with greater accuracy. And finally, by dispersing its first strike forces over the territories of several countries, the United States was able to divert part of the Soviet retaliatory missiles to European countries where their medium-range missiles were located, and reduce losses for the United States.

For the USSR, against which the Tor and Jupiter missiles were aimed, this the type of weapon posed a strategic threat. The Americans changed the balance of first strike forces in their favor. Appropriate response measures were needed. But what? Attacks on Alaska from Soviet territory did not solve the problem. The Soviet naval missile nuclear submarines were not yet ready for commissioning, especially on an adequate scale to counter the American nuclear missile threat.

It was necessary to find a foothold from which Soviet medium-range R-12 and R-14 missiles could pose an equal threat to the United States and thereby restore the status quo of the parties in the ability of nuclear missiles to inflict "unacceptable damage to a potential enemy" in the opposite direction. retaliatory strike. And here Cuba came to the fore. It was from here that it was possible to threaten with medium-range missiles (R-12 - range 2000 km, R-14 -
4000 km) of a large part of the United States, especially its eastern regions

policies and developed industry. But for this it was necessary to preserve the Republic of Cuba, politically oriented towards the USSR, to protect it from the threat of liquidation of the regime of F. Castro by the United States. And the threat persisted. After the failure of the attempt to land in Cuba the émigré opponents of Castro, backed by Washington, the economic blockade of the "Island of Freedom" continued, there was a constant danger of a new invasion by émigré formations in the United States or directly by American troops.

Therefore, these questions were constantly hovering in the Kremlin offices at the beginning of 1962. At the center of this whole problem was the question of the immediate deployment of nuclear missiles by the Soviet Union in Cuba, in agreement with the leadership of that country. This was done then in the name of strengthening the defense capability of the "Island of Freedom". Indeed, the Soviet military presence in Cuba, especially the deployment of a missile group there, was possible only if the Castro regime was preserved.

This is how A. A. Gromyko described the development of events, at that time the Minister Foreign Affairs of the Soviet Union:

"On May 20, 1962, N. S. Khrushchev was returning to Moscow from Bulgaria, where he was on a friendly visit. I accompanied him on the trip and therefore flew back with him on the same plane.

When we've been in flight for some time,

Khrushchev suddenly turned to me:

" I would like to speak to you alone on an important matter.

There was no one around. And I realized that we were talking about something really very important. Khrushchev did not like "narrow" conversations on political topics and rarely held them. What will he talk to me about? I decided that some new thought has matured or is maturing in him, which he needs to share with a person who is engaged in external affairs on duty ...

" The situation that has now developed around Cuba, " Khrushchev said, " is dangerous. To save her as an independent

states need to place some of our nuclear missiles there. Only this can save the country. Washington will not be deterred by last year's failure of the invasion of Playa Giron. What do you think about this?

He was waiting for an answer. The question was unexpected and difficult. Thinking, I said:

- The operation on Playa Giron, of course, was an aggressive, US-organized action against Cuba. But I am familiar with the situation in the USA, where I spent eight years. Including was there, as you know, and the ambassador. I must say frankly that the delivery of our nuclear missiles to Cuba will cause a political explosion in the United States. I am absolutely sure of this, and this should be taken into account. We paused. And then he suddenly said:

We *do not need a nuclear war, and we are not going to fight.*

I was silent. And Khrushchev, after some thought at the end of the conversation said:

- I will raise the question of the delivery of Soviet missiles to Cuba in the coming days at a meeting of the Presidium of the Central Committee of the CPSU.

He quickly did it . "

Gromyko writes "soon," although the meeting of the Presidium of the Central Committee took place immediately after Khrushchev's arrival, on May 20. Khrushchev told his comrades-in-arms the essence of the issue, but suggested that this should not be decided immediately, but that they should meet in a week. However, they gathered earlier - on May 24. This was framed as a meeting of the Defense Council jointly with the Presidium of the Central Committee. By this time, a group of employees of the General Staff under

the leadership of generals S.P. Ivanov and A.I. Gribkova prepared a plan for a military operation to assist the Republic of Cuba under the code name Anadyr.

Before familiarizing the members of the Presidium of the Central Committee with the prepared plan, Khrushchev asked: "Well, what did you think, comrades?" O. Kuusinen took the floor. He said: "Comrade Khrushchev, I thought. If you make such a proposal and think that such a decision should be made, I believe you and vote with you. Let's do it." Mikoyan

expressed doubt, calling it a dangerous move. Nevertheless, the decision was made21 .

But two days before that, A. Alekseev (a KGB resident in Cuba) had been summoned to Moscow. In a conversation with him, Khrushchev said: “We are appointing you as ambassador to Cuba. Your appointment is due to the fact that we have decided to deploy missiles with nuclear warheads in Cuba. Only this can protect Cuba from a direct American invasion. Do you think Castro will agree To such a step?"22. Alekseev expressed doubt that the Soviet military presence in Cuba would be used by the Americans to completely isolate the island. This, he believed, would deal a blow to Castro's policy of strengthening Cuba's solidarity with Latin American countries. (By the way, the appointment of Alekseev as ambassador was due to the fact that he had excellent relations with F. Castro, which Ambassador S. Kudryavtsev could not boast of.)

Therefore, at a meeting of the Military Council on May 24, Khrushchev spoke about the appointment of Alekseev and his doubts. At the same time, he stated that "a bold step is required to save the Cuban revolution." He further said: “Since in this region of the world the balance of power is not in our favor (if only in this region: the overall ratio in nuclear missiles was 5000: 300 in favor of the United States. - A.O.) ... missiles must also be deployed discreetly, with precaution, to present the Americans with a fait accompli." And he added: "After all, we are forced to put up with American missiles deployed near our borders in Turkey"23 .

As the participants and documents of the events testify, F. Castro took the Soviet proposals positively. “This is a very bold step,” he said, “and in order to take it, I need to consult with my closest associates. But if such a decision is necessary for the socialist camp, I think we will give our consent to the deployment of Soviet missiles on our island. Let us we will be the first casualties in the battle with American imperialism .

In Moscow, they did not think to bring matters to a nuclear war. Khrushchev believed that the Americans, who deployed their missiles in Europe, having a military base at Guantanamo, directly in Cuba, should come to terms with the fact that Soviet military bases would appear on the same island. This response to their missiles in Italy, and especially in Turkey, they, according to Khrushchev, should have been perceived as a retaliatory move by the USSR in order to restore the balance that existed before the deployment of "Thor" and "Jupiter" in Europe. Of course, this was not about the threat of a missile attack on the United States, but about the fact that the Americans would understand from their own experience what feelings the peoples of the USSR experience when they are under the threat of being hit by American missiles located around the Soviet Union.

But the Kremlin did not take into account one important psychological factor. The United States and NATO decided to deploy American medium-range missiles as early as 1957. Adopted openly at the NATO session. The entire course of preparations for their deployment was not a secret to the world community. There was a wide

the protest movement of European peoples, the deployment of missiles was covered in the press. And the Soviet Union did this secretly, secretly from the world community, which later cost the Soviet Union dearly in the moral and psychological aspect, undermined its prestige in the world.

In the meantime, at the end of May, a delegation consisting of the first secretary of the Central Committee of the Communist Party of Uzbekistan Sh. Rashidov, the commander-in-chief of the Strategic Missile Forces S. Biryuzov, and the secretary of the Defense Council S. Ivanov went to Cuba. The delegation had to carefully study the possibilities of the forthcoming deployment of missile units, identify the optimal conditions for their covert deployment, provide camouflage, and think over how to avoid leakage of classified information. This was the task primarily of the military - Biryuzov and Ivanov. However, Rashidov was in a hurry to Moscow in order to report on F. Castro's consent to accept the Soviet proposal as soon as possible. Time for detailed reconnaissance

locality

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However, he did not give the conditions for the deployment of missile units, their positions to Biryuzov and Ivanov. Therefore, a deep analysis and reasonable proposals for the placement of missile positions and their camouflage did not work out. Subsequently, this haste cost the Soviet missile units in Cuba dearly. Upon arrival in Moscow, the delegation reported its views: it is possible to start the Anadyr operation.

Defense Minister R. Malinovsky decided to create in Cuba a group of Soviet troops as part of a missile division (R-12 and R-14 missiles and nuclear warheads for them). The missile group was supposed to be covered from the air by Il-28 tactical bombers, parts of MIG-21 fighter-interceptors, S-75 anti-aircraft missiles, and from the sea by Kometa coastal defense missiles, Luna tactical missile systems and high-speed boats armed with P missiles. -1525

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In August, Che Guevara arrived in Moscow to finalize an agreement on the supply of Soviet missiles to Cuba. Castro proposed immediately publishing the text of the treaty, believing that this would raise the prestige of Cuba as a sovereign state that had concluded an agreement with another sovereign state, the USSR, on the basis of international law. But in Moscow it was considered naive. Khrushchev said that the Americans would find a thousand ways to prevent Soviet missiles from reaching Cuba. Therefore, only the unannounced, secret delivery of Soviet missiles to the "Island of Freedom" is real. The Cubans agreed .

At the same time, the question arose of how to covertly deliver this entire grouping of such a large group several thousand kilometers away to Cuba. It was necessary to radically change the entire transportation plan of the Soviet Ministry of the Navy, to charter a lot of foreign ships, and to conduct business in such a way that the owners and their crews did not know about the content and final destination of the cargo on board.

The ultimate goals of moving units at the initial stage were not reported even to high-ranking officers. The ships left various ports of the European part of the country. Since for missile defense

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From the air attacking positions, the means of combating the air enemy were required, the air defense units were among the first to be sent. They left Nikolaev. Air Marshal Sudets, who at that time was Commander-in-Chief of the Air Defense Forces of the country, who arrived at the port, handed over on the day of departure on July 12 to the senior commander in charge of the air defense unit on the large-capacity vessel "Khabarovsk", a package sealed with the signatures of the Minister of Defense and the Minister of the Navy, with the instruction: "Open after Gibraltar For all your ship

- a vessel carrying agricultural specialists.

Thus began the transfer of Soviet troops to Cuba. The transportation of personnel and equipment was carried out by sea on passenger and dry cargo ships of the merchant fleet from the ports of the Baltic, Black and Barents Seas (Kronstadt, Liepaja, Baltiysk, Sevastopol, Feodosia, Nikolaev, Poti, Murmansk). Vessels came for unloading in 11 ports of Cuba. The first transport with equipment and people that arrived on the island on July 26 was the ship "Maria Ulyanova". Behind him, on July 27-31, another 9 ships arrived. Transports with weapons and specialists continued to arrive. A total of 35 transports were planned. From September 9 to October 22, 24 ships managed to arrive. In September, the Soviet 51st Missile Division began to form in Cuba (commander Major General I. Statsenko). Unloading was carried out only at night, in conditions of complete blackout of ships and ports. All approaches to the unloading sites were guarded by Soviet units, and from the sea - by patrol boats. Rocket equipment was also delivered to areas of permanent deployment only at night. The personnel involved in these operations wore Cuban military uniforms .

By October 22, units of the missile forces, air force, air defense, and motorized rifle units were deployed on the island. The grouping of Soviet troops in Cuba was headed by General of the Army I. A. Pliev. In total, 40 thousand soldiers and officers were deployed on the island, as well as Il-28 bombers, Luna tactical missiles, interceptor fighters

chiki, anti-aircraft missiles and other air defense systems. The main striking force was 42 R-12 strategic missiles with a range of up to 2000 km and 36 nuclear warheads for them28

These missiles, capable of hitting targets on US territory up to the Washington-Dallas line, posed a strategic threat to the US equal to that posed to the USSR by the American medium-range missiles Tor and Jupiter deployed in Europe. The appearance of Soviet missiles in Cuba created an opportunity to start negotiations on the withdrawal of American missiles from Europe on a reciprocal basis. But first it was necessary to covertly deploy missile

parts.

Necessary measures were taken to camouflage the missile sites and secure the storage of missiles and warheads. They were kept separately: missiles - in sheltered areas, warheads - in caves at a distance of a kilometer from the missile positions in special vans. It took 3 hours to attach the head to the rocket, and 15 minutes to bring the fully assembled rocket into combat readiness. However, the strategic missiles were never put on alert during their entire stay in Cuba.

Naturally, despite the camouflage measures, it was not possible to hide the transfer of such a scale of military equipment and military contingents. The Americans received their first signal from West German intelligence: data on the movement of ships with weapons through the Baltic straits. They used the space system, the Samos satellites, at full capacity. Aerial photography of Cuban territory began to conduct high-altitude U-2.

Unfortunately, the fact that, having delivered their first missiles to Cuba, the Soviet official representatives in the relevant international organizations did not make an official statement about this, played a significant role in unleashing the crisis. It was the secrecy of this action that caused it to be especially resolutely rejected by the Kennedy administration. As noted in the Soviet-ame

rican symposium on the caribbean crisis, held in 1989 in

Moscow, one of the American participants, "the sharpness of our reaction was explained, in particular, by the fact that we were deceived, that it was a deliberate and deliberate deception." Another recalled that American missiles were placed openly in Turkey, and the American and world public knew about them.

It was the secrecy of the step taken by Moscow that worked in America in favor of the "hawks" to justify and strengthen the image of an enemy that is ready to do anything to defeat the United States, the main obstacle to its historical goal - world communist domination. It was Soviet secrecy that largely determined the ultimatum of the American line in overcoming the crisis. Our silence was not justified. But, on the other hand, it was, as it were, a response to the actions of the United States during the U-2 reconnaissance operations in 1956-1960. Then, to all the notes of protest from the USSR regarding spy flights, the Americans either declared that they were not involved in this, or completely ignored the Soviet protests! Violation of the norms of international law, of course, in no way justifies either side. But then, in 1962, the United States took advantage of this. An anti-Soviet and anti-Cuban campaign was unleashed in the American press.

However, it was preceded by a latent phase. The fact is that since August 27, intelligence information regarding the events taking place in Cuba began to arrive daily to the top leadership of the United States. On September 2, the US government orders its armed forces to "return" fire on Cuban ships and aircraft in neutral waters "if necessary" and at the same time informs the Organization of American States that "serious events will occur in the Caribbean in the near future if Castro will not come to their senses"29. In the same days, the State Department issued a statement that the emergence of "organized military

armed forces in Cuba from any country in the Soviet bloc or from Russian military bases" would have serious consequences30 .

On September 13, the American Congress authorizes the President to mobilize 150,000 reservists into the regular army for a year in connection with his appeal of September 7 about the need for this measure to protect West Berlin. But, in fact, this resolution refers not so much to the Berlin crisis as to the events in Cuba. In any case, on September 26, another congressional resolution states that "the United States intends ... to prevent the creation or use in Cuba of a military potential from outside that poses a threat to the security of the United States; together with the Organization of American States and freedom-loving Cubans, support the aspiration of the Cuban people for self-determination" 31 .

Military measures are also being taken. By September 19, preparations for the annual NATO Folex-62 maneuvers were completed. These exercises are aimed at practicing combat operations in the conditions of an exchange of parties with massive nuclear strikes. Under this pretext, on October 1, the United States Atlantic Command was instructed to concentrate forces and means by October 20 to implement Operational Plan 312-62. On October 3, increased air patrols of US coastal waters begin. The task is to detect Soviet submarines, and also - and this is the main thing - to deploy an operational formation of the US Navy to implement a naval blockade of Cuba. The strengthening of US military measures in the Atlantic is growing every day. On October 6, the Commander of the US Naval Forces in the Atlantic Ocean receives an order to be on standby for the implementation of Operational Plans 314-62 and 316-6232. In the Caribbean for October

exercises are planned to work out tasks related to the amphibious landing operation.

All this against the backdrop of last year's intervention in Cuba and the economic blockade of the "Island of Freedom" looks very ominous.
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The military measures of Washington and the hype in the US press did not go unnoticed in the USSR. The Kremlin saw that the Americans were experiencing some kind of anxiety, but believed that they were unlikely to guess Moscow's plan.

In early September, Khrushchev, in a conversation with the US Secretary of the Interior, said: “But you are sending missiles and nuclear warheads to Japan. Why is this being done? This is directed against us. You are threatening Fidel Castro, and we are giving him modern defense equipment. know how to handle this technique, and we send our specialists to them for training " 33. On September 11, 1962, the Soviet Union appealed to the US government with a call "to show prudence, not to lose self-control and soberly assess what its actions could lead to, if it unleashes a war"34. A TASS statement on the same day reported: "The Soviet government considers it its duty to exercise vigilance in the current situation and instruct the Minister of Defense of the Soviet Union to take all measures to ensure that our Armed Forces are brought to the highest combat readiness" 35 .

The Warsaw Pact countries are also taking a number of actions that demonstrate the bloc's military readiness. In the first ten days of October, a military exercise is held on the territory of Poland and the GDR under the leadership of the Polish Minister of Defense. It is attended by the Commander-in-Chief of the Armed Forces of the Department of Internal Affairs A. A. Grechko. At the same time, the exercise of Soviet, East German and Czechoslovak troops is being carried out on the territory of Czechoslovakia. The breath of a great war is already felt in the world.

2. On the brink of nuclear war

Meanwhile, the events of the developing crisis are growing. October 14 U-2, piloted by Major Richard Heiser, photographs suspicious objects near Havana. Developed the next day, pictures
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show that a large area near San Cristobal is covered with camouflage tents, which was not the case when photographing the same area on August 29. In addition, the photographs show the rocket tankers, trailers, located without any disguise, and under the awnings, the configurations of the launch installations are guessed. There can be no doubt: Cuba has ground-to-ground ballistic missiles.

On October 16, all this was reported to the President. Kennedy was amazed. Previous intelligence reports on this issue gave rise to doubts, but Soviet representatives assured both the US State Department and the UN that there were no offensive missile weapons in Cuba. And now he had irrefutable evidence in front of him: photographs of Soviet missiles.

At 11.45 the same day, John F. Kennedy gathered the closest advisers and experts. They began to compare the available data: trailers, a cleared area, rutted roads leading to it - everything confirmed the information of the scouts. Yes, there are Soviet missiles in Cuba that can hit targets in the United States. The question arose: what to do? On the one hand, a sovereign state (USSR) is building a military base on the territory of another sovereign state. It seems to be their business. But what should be the US response? All present agreed that it was vital to stop this

activities of the USSR and Cuba. But how? Opinions were divided. Professional military representatives of the OKNSh spoke in favor of a forceful solution: to launch air strikes, and then land American troops on Cuba. Secretary of Defense R. McNamara proposed establishing a naval blockade as a first step. He was supported by the President's brother, Attorney General Robert Kennedy.
But a naval blockade in conditions when dozens of Soviet ships were heading to Cuba is also risky. What will be the reaction of the USSR to the delay and search (or inspection) of its ships? Counteraction by the Soviet Union in Europe, in particular on the German question, is also possible. ending
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no other decision was made then. But every day there are new
proof.

On the incoming photographic documents, the contours of the starting positions were clearly visible - either 16 or 32 (if they are paired). The available information, which was very inaccurate, was supplemented by reports from the American agent in the USSR, Oleg Penkovsky. He informed Washington that at least 50 ICBMs, not including medium-range missiles in Cuba, were on alert in the territory of the Soviet Union. (Actually, the USSR had 20 R-16 missile systems and 6 R-7 missiles combat-ready)36 .

In this complex situation, fraught with the most serious consequences, President Kennedy decided to invite Soviet Ambassador A. Gromyko to a talk. The audience took place on 18 October. Here is how A. Gromyko recalled it:

"In general, the conversation was politically tense. We certainly didn't pound our fists on the table. The necessary correctness was observed.

Most of the time turned out to be devoted to discussing other important international issues. I raised the Cuban question in the conversation on my own initiative and outlined the position of the USSR to the President, emphasizing that the unrestrained anti-Cuban campaign waged by the American side, its attempts to block Cuba's trade with other states, calls for direct aggression against this country could lead to grave consequences for
of all mankind.

In turn, Kennedy said:

"The current regime in Cuba does not suit the United States, and it would be better if another government existed there.

The statement sounded sharp. I drew attention to the fact that he was not at all looking for some expressions that could somehow smooth over the impression that the harsh wording made about the new Cuba.

Then I asked the question:
- And, in fact, on what basis does the American leadership believe that the Cubans should decide their internal
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early affairs not at its own discretion, but at the discretion of Washington? Cuba belongs to the Cuban people, and neither the US nor any other power has the right to interfere in its internal affairs. Any claims we hear from the President and other officials that Cuba is a threat to US security are unfounded. It is enough just to compare the size and resources of these two countries - the giant and the little one - and all the groundlessness of the accusations against Cuba will become obvious.

Referring to the position of Cuba, which has repeatedly stated that it does not intend to impose its rules on anyone and that it firmly stands for the non-interference of states in each other's internal affairs, seeks through negotiations

to settle all disputes with the US government, I noted:

- The solution of the vast majority of international problems is the result of negotiations between states.

This made it clear to the American president that if the United States had any grievances against Cuba or the Soviet Union, they must be resolved by peaceful means.

At the same time, on behalf of the Soviet leadership, I told Kennedy:

- In conditions when the United States is taking hostile actions against Cuba, and at the same time against states that maintain good relations with her, respect her independence and provide her assistance in her difficult hour, the Soviet Union will not play the role of an outside observer. The USSR is *a great power and will not be just a spectator when there is a threat of unleashing a major war, whether over the question of Cuba or over the situation in any other part of the world.*

" *My administration," Kennedy argued in response, " has no plans to attack Cuba, and the Soviet Union can proceed from the fact that no there is no threat to Cuba.*

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Then I referred to the aggressive action against Cuba at Playa Giron.

"After all, it was the United States that organized it, " I said. It *'s a product of their policy.*

"The actions in the Playa Giron area were a mistake, " the president admitted. "I hold back those circles that are in favor of the invasion, and seek to prevent actions that would lead to war. I do not deny," he said further, " that the Cuban question has become really serious. It is not known what it could all end.

He began to talk at length about the Soviet "offensive weapons" deployed in Cuba. He did not use the word "rocket". I can't explain why the President did this. But in doing so, he somehow eased my situation. It didn't seem necessary to me to talk directly about rockets either.

During this conversation, Kennedy had photographs of Soviet missile launch pads on his desk. But he did not show them to the Minister of Foreign Affairs of the USSR, although he (not knowing about this fact) was ready to answer. The President went on to say that Soviet offensive weapons stationed in Cuba were a threat to the United States. He announced to the ambassador that the United States was establishing a naval blockade around Cuba. Gromyko replied:

"The Soviet Union urges the US government and the president personally not to allow any steps that are incompatible with the interests of peace and detente, with the principles of the UN Charter ... Soviet assistance to Cuba is aimed exclusively at strengthening its defense capability and developing a peaceful economy. The training of Cubans by Soviet specialists in handling weapons intended for defense cannot in any way be regarded as a threat to anyone. The USSR responded to Cuba's call for help because this call is intended to eliminate the danger looming over it ... The Soviet Union delivered a small number of defensive missiles to Cuba. They will never threaten anyone." At the end of the conversation, Kennedy outlined the US position; [37].

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"Firstly," he said, " the United States does not have in mind and will not undertake an armed invasion of Cuba. Secondly, I officially declare that the action at Playa Giron was a mistake. Thirdly, the Soviet "offensive weapons" must, of course, be removed from Cuba. With all this in mind, the relevant issues can be settled"38 .

Although Kennedy quite clearly stated the position of his government, there was no immediate reaction from Moscow to his arguments. Khrushchev still hoped to stall for time so that the Soviet missiles in Cuba were put on alert, and then start negotiations with Washington, putting forward his own conditions.

Soviet diplomats in the United States found themselves in a difficult position. Most of them, including the recently appointed ambassador A. F. Dobrynin, simply did not know anything about the Anadyr operation. In the meantime, pictures of Soviet missiles in Cuba appeared in American newspapers, but Soviet diplomats were forced to deny, reject and even refute such publications, "proving" to the Americans that these were not missiles at all or not at all in Cuba, that this was a falsification and a provocation.

The denial of the delivery of Soviet missiles to Cuba, when the secret of the Anadyr operation had already been largely disclosed, meant a loss of confidence in our representatives on the part of the Americans, which, in turn, caused considerable state damage to our country.

At one of the meetings of the Security Council, employees of the US representative to the UN, Adlai Stevenson, brought into the hall and placed billboards with revealing photographs. E. Stevenson asked the Soviet representative V. A. Zorin: "Mr. Ambassador, tell me if there are Soviet medium-range and intermediate-range missiles in Cuba, tell me, without waiting for a translation: yes or no?" Zorin replied: "I'm not in an American court, Mr. Stevenson."

In the Soviet newspapers in those days they wrote: “V. A. Zorin exposed employees 437 extracted from a pile of rubbish U.S. State Department allegations of a so-called “establishment of Soviet missile bases” in Cuba.” On October 17 and 19, U.S. [39].

aerial reconnaissance received new photographs showing that the establishment of missile positions in Cuba was in full swing. As it turned out later, indeed, by October 10, the Soviet missile division on the island already had 10 combat-ready missiles, and by October 20 - 2040 .

Such was the situation by the time President Kennedy, speaking on the radio on Monday, October 22, officially announced the imposition of a naval blockade of Cuba, or, as he preferred to put it evasively, "quarantine." Large US naval forces—183 ships —were drawn into the Caribbean Sea. The commanders were instructed to search the ships en route with cargo to Cuba. This was already a violation of international law.

But the naval blockade did not end there. Immediately after the President's speech, the Pentagon began preparing troops for the invasion of Cuba. In its first echelon, it was supposed to land 17,000 American soldiers and officers on the island, including 14,000 from the airborne troops. They were to be supported by 750 combat aircraft, including 430 tactical fighters and up to 140 ships. The amphibious landing operation (codenamed "Mongoose") was to take part in the 82nd and 101st airborne divisions, the 1st and 2nd infantry, the 1st armored division and the 2nd marine division. The 4th, 5th Infantry and 2nd Armored Divisions were in reserve. This grouping consisted of 600 tanks, 2,000 artillery pieces, and 12 Honest John unguided tactical missiles41 .

Immediately after Kennedy's speech (and the author of this book listened to his speech while being part of a combat crew called on alert at the Central Command Post of the country's air defense forces), the number of constantly

strategic bombardi on duty in the air
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movers B-52 with nuclear bombs on board. If at the usual time their patrols under the Chrome Dome program did not exceed 18-20 aircraft, then with the announcement of a naval blockade by the president, the group of patrolling bombers increased to 80-100 aircraft.

This in itself was dangerous, as it increased the possibility of an unauthorized, accidental release of nuclear bombs. Such cases, as already mentioned, took place in the 50s, and the last known by that time occurred 5 years before the events described.

It happened on May 22, 1957 near the city of Albuquerque (New Mexico). A B-36 strategic bomber was completing its flight from Biggs Base, Texas, preparing to land at Kirtland Air Force Base. One of the crew members, the navigator, was in the bomb hatch, where, using a special device, he tried to secure the hydrogen bomb on board before landing. Suddenly the plane shook, and the navigator, having lost his balance, grabbed the first object that came to hand. It turned out to be the handle of the mechanism used for bombing. A bomb with a capacity of over 10 megatons fell down. It was only by pure chance that a nuclear explosion did not occur, and Albuquerque, along with nearby settlements, did not suffer the fate of Hiroshima and Nagasaki42 .

So, the naval blockade, the preparations for the amphibious operation against Cuba, the strengthening of the strategic aviation grouping, which was at the highest level of combat readiness, all indicated that the crisis was entering a dangerous stage, fraught with a world nuclear war. It was already a run to Armageddon - the end
Sveta.
President Kennedy did not limit himself to an appeal to the American people to establish a "quarantine on all types of offensive weapons transported to Cuba." In a personal letter to Khrushchev, he reminded that, as in the Berlin question, he had once stated bluntly that if events around Cuba took a certain direction, the United States would do everything necessary to protect
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their safety and their employees. Nevertheless, the rapid deployment of medium-range missiles in Cuba and other offensive weapons has occurred. "I must tell you," the president wrote, "that the United States is determined to eliminate the threat to the security of our hemisphere." Kennedy reported that the measures he was taking were only the "necessary minimum" and expressed the hope that the Soviet government would refrain from any action that could only deepen this dangerous crisis .

The Kremlin did not expect such harshness. The erection of the wall in Berlin and the incident with an attempt to break through to East Berlin by American units in October 1961 did not seem to give reason to expect such a sharp reaction from Washington. Khrushchev's improvisations about what to consider an "offensive weapon" began, which in the growing crisis situation did not look convincing enough and greatly undermined the prestige of the USSR and Khrushchev personally in the eyes of the world community.

In addition, another episode occurred at this time, which, although accidental, could have a significant impact on the course of events. On October 22, Colonel of the Soviet Army Oleg Penkovsky was arrested in Moscow. Officially, he worked in the Committee for Science and Technology, but at the same time he was an employee of the Main Intelligence Directorate of the General Staff. He had access to the most important military and state secrets of the USSR, was in a trusting relationship with several high-ranking military leaders. Back to top

the Cuban crisis, Penkovsky already felt that he was in the field of view of the Soviet counterintelligence and the ring was inexorably shrinking. He did not know anything about the Anadyr operation, but he had two signals from the CIA in case of emergency: one - in the event of a threat of arrest, the other - about the preparation of a surprise strike of Soviet nuclear missiles on the United States. And on the day of his arrest, at the last minute, he sends the agreed signal to the CIA, but not about an imminent arrest, but about a prepared preventive nuclear strike by Soviet intercontinental missiles against the United States.

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Fortunately, the CIA officers who had worked with Penkovsky for several years on that day, October 22, considered this warning to be erroneous and reported to Director McCone only about the fact of the arrest of a valuable agent, but kept silent about the nature of his signal. And they did the right thing, because in that extremely tense situation,
when the US strategic forces were put on the highest alert, the signal of the beginning of the war by the Soviet Union could lead to unpredictable
consequences.

On October 24, Khrushchev was handed a new message from Kennedy. The President expressed the hope that Soviet ships would comply with the conditions of "quarantine". The answer came to Washington on the same day and was very threatening. Khrushchev regarded the American action "as an act of aggression, pushing humanity to the brink of a global nuclear missile war," and reported that the Soviet government could not instruct the captains of its ships to obey the orders of the American Navy blockading the island of Cuba. “We will not only watch the piracy of American ships at sea,” the Soviet leader stressed, “we will be forced, on our part, to take the necessary measures to protect our rights. For this, she has everything necessary” 44 .

Such an exchange of messages did not bode well, and in the meantime, Soviet ships were approaching the "quarantine" line, where American ships were on duty. What will the meeting be like? This question worried both Washington and Moscow. President Kennedy asked the secretary of defense to convey to Admiral Andersen, commander of the "quarantine" forces, his order: "open fire only with the permission of the president." McNamara contacted the admiral. It turned out that he was going to act in accordance with the naval regulations: a warning shot ahead of the course, and in case of disobedience, fire to kill. The minister was horrified: after all, it was possible to start a third world war! He sternly conveyed to the admiral the President's order: fire only after receiving confirmation from the White House.

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On October 24, tensions escalated. Two Soviet ships - "Komiles" and "Gagarin" approached the positions of American warships. America watched this scene on TV. We in Moscow at the Central Command Post of the country's air defense forces also saw on the tablet how the rapprochement was taking place. The countdown went on units of kilometers: five, four, three. The nerves of everyone who watched this picture on both sides of the ocean were on edge.

But at this time (this was visible on the tablet), the Soviet ships stopped, and then, turning around, lay down on the opposite course. And here's what happened. When there were a few kilometers left to the meeting point, the captains of Gagarin and Komiles received a cipher message from Moscow. She ordered not to cross the "quarantine" line, but to move to a safe distance, lie down in a drift and wait for further orders.

The White House breathed a sigh of relief. "There will be no detention or search," Kennedy said. Turned back and the next 14 Soviet

dry cargo. But the tankers kept going. The Bucharest tanker was the first to approach the ill-fated line. An identification ritual took place, but the tanker was let through, albeit accompanied by a destroyer. The following tankers followed in the same order. But in the following days, Soviet ships did not approach the "quarantine" line in order to avoid incidents45 .

It seemed that the issue of "quarantine" was resolved without excesses, but the tension did not subside. Now it has moved from the sea to the air. Reports appeared in the American press about the possibility of massive air strikes on missile sites under construction in Cuba. The Soviet embassy in Washington reported to Moscow that bombing of Soviet military installations on the island was very likely. An amphibious landing is also not ruled out. In another letter from the American president to Khrushchev, dated October 25, Kennedy reproached the Soviet premier for the fact that the weapons that the Russians call defensive, which arrived from the USSR to Cuba, are in fact "offensive" - a rocket

mi. He urged Moscow to return to the "previous situation", i.e. remove Soviet missiles from Cuba. The American press continued to escalate the alarming situation, more and more voices were heard calling for air strikes on missile positions in Cuba.

Alarmed by the threatening development of events, F. Castro suggested that Khrushchev make a statement that the USSR would use nuclear weapons if the United States did not stop bombing Cuba. The growing threatening situation was perceived in Moscow with increasing anxiety. Khrushchev sent a letter to Kennedy on October 26. He denied the "offensive" nature of the weapons directed at Cuba, asserting that these weapons were sent to F. Castro at his request for the defense of the island. "The Soviet leadership is not going to attack the USA," he wrote, "a war between the USSR and the USA would be suicidal. Let's normalize relations." He proposed a compromise: the Soviet side announces that the ships going to Cuba will not carry out any military supplies; the American side undertakes that the United States will not intervene in Cuba and will not support forces that have such an intention46. Negotiations began through the usual diplomatic channels, but also intelligence officers were involved, as well as persons "close to the top leadership of the United States and the USSR. There was an exchange of messages between the White House and the Kremlin. All this took place in an extremely tense atmosphere. Some incidents at that time seemed The fact is that American Air Force planes made daily reconnaissance flights over Cuba.Soviet anti-aircraft missile units, which had high combat capabilities to hit air targets, were ordered not to open fire on the Americans.

The latter, having learned about this, decided to use the situation. Ever since the Powers incident, the US military has been very interested in the Soviet S-75 anti-aircraft missile. It was known from aerial reconnaissance that

missiles of this type were brought to Cuba. Attempts to capture the S-75 through the operation of special units were not successful. Then they decided to conduct an air operation. One of the cargo helicopters was equipped with a special device with which it was possible to hook a missile lying on the ground on the fly and deliver it by air to the Guantanamo base. Trained in Florida on metal pipes. But the Soviet anti-aircraft gunners found out about the plans of the Americans and prudently tied their missiles with ropes. It was not possible for a helicopter to lift them47 .

The climax of the crisis came on 27 October. On this day, several significant events took place both on the diplomatic and military fronts. By this time, more and more information about a possible American invasion of Cuba was accumulating in Moscow. F. Castro wrote about the readiness of the Cuban people to fight the interventionists under the slogan: "Motherland or death." He ordered Cuban troops to shoot down American planes that violated Cuban airspace. This development worried the Kremlin. Khrushchev's plans did not include getting involved in a war with the Americans. Therefore, it was necessary to hurry to settle the conflict by political measures. Fearing the worst, Khrushchev, without waiting for Kennedy's response to his letter of October 26, on Saturday, the 27th, sent a new message to the US President in clear text over the radio. This, of course, was an unprecedented violation of diplomatic rules in relations between heads of state, but the most important thing was the gain in time: it was necessary to forestall the Americans, to keep them from invading Cuba.

Khrushchev informed the American president of the USSR's readiness to remove "those weapons from Cuba that you consider offensive" (i.e., R-12 missiles), but demanded a publicly announced commitment from the United States to refrain from attacking Cuba and "withdraw similar American weapons from Turkey ". So for the first time in the open media there was a proposal to remove American missiles from Turkey in exchange for the removal of Soviet missiles from Cuba.

The US President, who was already struggling to contain the pressure of the "hawks" demanding the bombing of Soviet missile facilities and the invasion of the island, was extremely reluctant to publicly link the Caribbean crisis with the withdrawal of American missiles from Turkey (although he was internally ready for this, since the appearance of submarine nuclear missile carriers with Polaris missiles have already made obsolete and expensive missiles like Thor and Jupiter unnecessary). In this regard, in a response, also in a public message, he kept silent about missiles in Turkey, but proposed to resolve the crisis on the following conditions: the USSR removes missiles and other "offensive" weapons from Cuba, and the United States cancels the "quarantine" and gives assurances that Cuba will not be attacked either by the United States or by other countries of the Western Hemisphere48 .

But what about the Soviet proposal for missiles in Turkey? Secret diplomacy kicked in. On the evening of October 27, the president's brother, Minister of Justice Robert Kennedy, invited the Soviet ambassador to his place for a confidential conversation. He said the president was having a hard time keeping the military from insisting on bombing and invading Cuba. He repeated the President's proposal to Khrushchev, but also passed over in silence the issue of the missile withdrawal from Turkey. In response to Dobrynin's question about this, R. Kennedy said that there were no insurmountable obstacles, but the president could not talk about this publicly, since the deployment of American missiles in Europe, including in Turkey, was framed as a NATO decision. The President is ready to tacitly agree on the curtailment of missile bases in Turkey in 4-5 months. R. Kennedy warned the ambassador that this conversation was confidential and only a few people knew about it. The president, according to his brother, asked that Khrushchev be given this urgently and asked him to give an answer as soon as possible, preferably within 24 hours49 .

On the day when these difficult confidential negotiations were going on, events occurred that further aggravated the situation. As already mentioned, F. Castro, heads

commander of the Cuban armed forces, ordered his troops

Air defense from October 27 to open fire on US aircraft violating Cuban airspace, and announced this in an official government statement. However, Cuban air defense systems could not shoot down high-altitude targets, and therefore the U-2 aircraft, operating at an altitude of twenty or more kilometers, were out of reach for Cuban anti-aircraft gunners. The U-2 crews found out about this and continued reconnaissance flights over Cuba.

On October 27, when the crisis reached its climax, the U-2 high-altitude reconnaissance aircraft were again in the spotlight. It was known in Moscow that the Pentagon was demanding decisive action from the president. The troops, air force and navy were already in full readiness for the invasion of Cuba. In Washington, the situation was also tense to the limit, as evidenced by a secret conversation between A. Dobrynin and R. Kennedy.

And in such a situation, US Secretary of Defense Robert McNamara receives a report: at 11.20 (Washington time) a U-2 aircraft, flown by Major C. Maultby, violated the border of the USSR and is over Chukotka. When the minister found out about this, Air Force General D. Berginal, who was present in the room, recalled, he “turned completely white and shouted:“ This means war with the Soviet Union! The President must immediately contact Moscow. And he left the office in extreme excitement. The President took it more calmly. He only said the phrase that later became famous: "There will always be a son of a bitch who can ruin the whole thing" 50 .

And here's what happened. Charles Maultby flew a U-2 from Aielson Air Force Base (Alaska) to the North Pole. His task was to take air samples to determine whether there had been recent nuclear tests on Novaya Zemlya. During the flight, due to a malfunction of navigation equipment, the aircraft deviated from the course and ended up over Chukotka. It was discovered by Soviet radars. Two fighter planes took off towards him. But he already realized the mistake and asked for help at his airfield. To him

two F-102 interceptors flew to the rescue. Since these were duty fighters, they had air-to-air missiles equipped with nuclear warheads. Their task was to bring Maultby to their airfield.

Thus, there were already three American aircraft in the airspace of the USSR, and two Soviet fighters were going towards them. And this is at the peak of the Caribbean crisis. In addition, Maultby had been in the air for 10 hours, and he was running out of fuel. He did not have the right to land on the Soviet airfield, since the plane was literally stuffed with secret equipment for various purposes. This means that in the event of a meeting, a battle was coming and, possibly, with the use of nuclear weapons. Fortunately, the guidance did not take place. Soviet fighters returned to their base. U-2 and F-102 went to Alaska. In Moscow, this episode was regarded realistically: most likely, the U-2 got lost.

But the ordeal of that day did not end there. Literally 2 hours later, a Soviet anti-aircraft missile shot down Rudolf Anderson's U-2 over Cuba, who was photographing missile positions. The pilot died. Here is how this episode is described by Lieutenant General L. Garbuz, Deputy for Combat Training I.A. Plieva: "The decision to destroy the reconnaissance aircraft was made by Lieutenant General Grechko, Deputy Commander of the Group of Forces for Air Defense." Both generals were at the command post of the group of troops, they had to be guided by Pliev's order: "open fire only in case of a clear attack." But how is this to be understood? For 30 minutes, while the U-2 was flying over Cuba, they, like their subordinate commanders, were tormented by doubts: to consider this flight "obvious

attack" or not. Pliev called several times, but he was somewhere in the army. Meanwhile, R. Anderson, having completed the task, left the airspace

islands. What to do? Garbuz, having received information that all the positions of the missilemen were "exposed", and the plane was leaving, began to insist: "We must act, Stepan Naumovich." Shooting down a plane in that tense situation means taking responsibility. Grechko calls again and again

blowing, but the tube is silent. And then the order was given: shoot down. Division Major I. Gerchenov coped with the task. In official language, the decision to intercept the flight was determined by "the operational-strategic need to prevent the US leadership from receiving consolidated intelligence on the missile group." This, of course, was a very risky decision, but in the circumstances of that day it was understandable. Why did the Soviet generals decide to do this? Because the point of the order that the S-75 "Desna" complexes "open fire only in the event of a clear attack" was formulated rather vaguely. Hence the hesitation in decision making. Here is how Major Nikolai Serovoy, who headed the reduced combat crew at the command post of the 27th Air Defense Division, supplements the story of General Garbuz: “In the evening, the commander of the division, Colonel Georgy Voronkov, contacted me by phone. the servicemen wore civilian clothes and addressed each other by name and patronymic.- *A.O.),* an encryption was received - tomorrow at dawn there will be war. The United States has officially warned our government of its decision to attack Cuba. Put parts of the division on alert, but covertly. I'm leaving for the command post (CP)". A few minutes later, the direction officers reported on the readiness of the units for combat operations -

all air defense systems were included. Soon, Colonel Voronkov arrived at the command post with officers of the full combat crew. "According to N. Serovoy, it was Voronkov, and not Grechko, who gave the order to shoot down the U-2.

Army General Pliev took the report on the destruction of the reconnaissance aircraft in general calmly. He only gave the order to speed up the collection of data and prepare a cipher message for the Minister of Defense. Based on it, Malinovsky will send an official report to Khrushchev on October 28 at 10.45. Here is his text:

"Owls. secret. To Comrade Khrushchev N.S. I report. On 10/27/1962, the U 2 aircraft at an altitude of 16,000 m at 17:00 Moscow time invaded the territory of Cuba with the aim of

photographing the combat formations of the troops and for 1 hour 21 minutes passed along the route Yaguahay, Ciego Deavila, Camagüey, Manzanillo, San Luis, Guantanamo, Preston.

In order to prevent photographic documents from reaching the United States at 18.20 Moscow time, this aircraft was shot down by two anti-aircraft missiles of the 507th Zenrap at an altitude of 21,000m. The plane crashed near Antilla. Searches organized.

On this day, there were 8 violations of US airspace

Cuba. R. Malinovsky. October 28, 1962 10.45 pm.51

Soon a telegram arrived from Moscow to a group of troops in Cuba: "You were in a hurry. Ways of settlement have been outlined."

The risk was indeed enormous. When the U-2 was shot down, the Pentagon leadership suggested that President John F. Kennedy immediately strike at Cuba, but he did not agree. The degree of risk was also understood in the Soviet Union. That is why Moscow reproached the anti-aircraft gunners: after all, this incident occurred at a time when the Soviet Union was faced with the acute question of how to prevent the outbreak of a global nuclear missile conflict, to find the best ways to resolve the crisis as soon as possible.

They were waiting for an answer to Khrushchev's letter to President Kennedy. And suddenly two

news. What does it mean? The flight over Chukotka now looked like the last reconnaissance flight before the attack, and the downed U-2 over Cuba could only strengthen the Americans in the belief that the USSR was also ready to start a nuclear war. Both in the White House and in the Kremlin, the mood was close to panic. Khrushchev, upon learning of Anderson's death, lashed out at Defense Minister R. Malinovsky: "In whose army does the general serve - Soviet or Cuban?"52 He forbade opening fire on American intelligence officers, and also ordered that no one be allowed near our missiles in Cuba.

The tension has reached its limit. But the voice of reason still prevailed. The Soviet side showed proper self-control, restraint and a sense of responsibility, readiness for mutually acceptable compromises and

mating in the highest interests of maintaining peace on Earth. This was also noted by the American side. Soviet restraint and the desire to prevent an uncontrolled escalation of the conflict were also evidenced by the daily reports of CIA chief John McCone to the US top leadership. Thus, in the CIA documents for October 24, 25 and 27, at the very peak of the crisis, it was noted that the measures taken by the USSR to increase the combat readiness of its Armed Forces were not defiant and provocative.

At the same time, Washington was quite sober in assessing the military power of the Soviet Union and the potential for a retaliatory missile strike, and as the crisis deepened, they increasingly considered its extremely dangerous consequences for the United States itself. President Kennedy said during one of the meetings: “I think that the risk for us is increasing. Yes, I think so. What difference does it make? In any case, they (the Soviet Union. - A.O.) have quite *enough* funds so that we can fly into the air. I think that this is just a question ... After all, this is as much a political struggle as it is a military one "53 . It was a step towards realism, towards an understanding of objective reality.

For the American leadership, the frightening impasse of power politics was perfectly clear. The prospect of thermonuclear war made many in the Washington administration shudder. Despite the fact that the Americans had a significant superiority in missiles, they could not use their nuclear power to achieve their goals without the risk of receiving a counter nuclear missile strike in response. The test of the Soviet "superbomb" on Novaya Zemlya in 1961 testified to the possible force of such a strike.

In those anxious days, when it seemed that war was about to break out, both sides had the wisdom and courage to make mutual concessions. On October 28, the Soviet government informed Washington that it was prepared to dismantle Soviet missiles in Cuba and evacuate them in exchange for the US government canceling plans to invade Cuba. With regard to the Soviet mandatory

In order to remove the American Jupiter missiles from Turkey, R. Kennedy and A. Dobrynin reached an agreement that this would not be reflected in open official statements and publications. Khrushchev agreed with this, although in a confidential message to the president he emphasized that the agreement between the US and the USSR on Cuba was reached taking into account John F. Kennedy's consent to resolving the issue of American missile bases in Turkey .

Khrushchev's failure to demand from President Kennedy that he give a public rather than a confidential commitment to withdraw the Jupiter missiles was gross political mistake of the Soviet leader. The Western media proclaimed the United States the winner in a most dangerous crisis. Since the secret agreement regarding American missiles in Turkey

no one knew, and Soviet missiles began to be exported from Cuba and the whole world knew about it, it looked like a humiliation of the Soviet Union and Khrushchev personally.

In those days, the commander of a group of Soviet troops in Cuba received an order from Moscow to cancel combat readiness and curtail missile units. On October 30, UN Secretary General W. Tan met in Cuba with the commander of the missile division, Major General I. D. Statsenko. He informed W. Tan about the progress of dismantling the missiles and the timing of their export to the Soviet Union.

Further negotiations between the Soviet and American leaders, as well as negotiations within the framework of the UN, provided an opportunity to break the deadly impasse. On November 20, the US government lifted its "quarantine". The United States declared as a pledge that Cuba would not be attacked or invaded, not only by the United States, but also by other states of the Western Hemisphere. Soviet missiles were taken out of Cuba.

However, the lengthy negotiations that followed did not lead to the signing of any official joint document. American 451 rejection side

attempted to document its commitment not to attack Cuba, taken during negotiations in October 1962, although it did not violate it in subsequent years. The United States has ensured that not only R-12 missiles, but also Il-28 bombers are included in the category of "offensive" weapons to be evacuated from Cuba. The removal of Soviet missiles and bombers took place under the visual control of American aircraft, which flew around the ships coming from Cuba. The crisis formally ended on January 7, 1963, when the representatives of the USSR and the USA, who participated in the negotiations, addressed a joint letter to the UN Secretary General. It stated that, although both governments failed to solve all the problems, both sides consider the degree of agreement reached between them sufficient to remove the question of the Caribbean crisis from the agenda of the UN Security Council56 .

With regard to US missile bases in Turkey, the White House kept its promise. Already on October 29, 1962, McNamara ordered the liquidation of Jupiter rocket installations until April 1, 1963. Later that year, all US medium-range missiles were removed from Europe.

The Cuban Missile Crisis was a product of the Cold War and the growing rivalry between the two superpowers for influence in the world. In this global confrontation, any local or regional conflict could lead to a general war. And in the realities of those years, this could lead to a third world war with the use of nuclear weapons as the decisive weapon of victory. And it was the Caribbean crisis that showed that a nuclear missile war would not bring victory to either side: there could be no winner in it.

Many years later, in 1989, a tripartite symposium (USSR, USA, Republic of Cuba) was held in Moscow on the Caribbean crisis. R. McNamara, one of the directors of the International Foundation for the Survival and Development of Mankind, who participated in the symposium since 1988, recalled the days of the crisis:

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“On the evening of October 27, I left the White House from the President. It was a bright autumn evening. And I thought, "Maybe I'll never see such a beautiful Saturday night again." I must tell you that this feeling reflected the level of crisis, the level of tension at the time.

...Here in Moscow, we learned from the Cuban representatives that it was precisely on Saturday, October 27, in the evening, that they were convinced that in two or three days, either on Monday, October 29, or on Tuesday, October 30, an American

an air attack on Cuba and a ground invasion of their country will begin. They also said that they were determined to fight to the last soldier or to the last bullet, and that the Soviet troops stationed there - forty thousand people - were also ready to fight to the last. According to their estimates, Cuba's losses in manpower would amount to 100,000

Human.

But think for a moment, even if they are right in their assessment of possible losses, which in itself would be terrible, think about it, would it all end there? Of course not! Of course, the Soviet Union would have responded with military moves somewhere in the world and, of course, the United States would have responded with military measures to the Soviet military response. And who knows to what extent the escalation would have continued?

I believe that this is where the danger of such situations lies. This is one of the lessons of the Caribbean crisis. In the nuclear age, crisis management has become dangerous, difficult and unpredictable .

At the same time, the Caribbean crisis not only showed the complete unacceptability of a general nuclear war, but also played a large role in the further development of Soviet-American relations. He convincingly highlighted the danger of a direct military clash between two great powers, which was averted - on the brink of war - by the awareness on both sides of the catastrophic consequences of such a clash. It is precisely because of this that the main emphasis was placed on a political solution to the conflict, which (as A.F. Dob emphasized in his memoirs

Rynin) was helped to no small extent by direct, highly confidential contact between Khrushchev and John F. Kennedy through their proxies. Only after a conversation between Robert Kennedy and Anatoly Dobrynin did it become clear that war could be avoided.

The missile crisis, as it is called in the United States, contributed to the understanding by the leaders of the United States and the USSR of the need, firstly, for a permanent direct channel of communication between them, the so-called "hot line", and secondly, the signing of a number of agreements aimed at easing international tension. After October 1962, there were no more dangerous situations like the Berlin (1961) or Caribbean crisis, when the two superpowers would have been involved in a direct confrontation.

But there were also negative consequences. The Soviet ruling circles, especially the military, took the evacuation of Soviet missiles from Cuba under American control extremely painfully. This was regarded as a humiliation of the national dignity of the Soviet state. The military-industrial complex and law enforcement agencies of the USSR began to seek the adoption of a new program to build up nuclear missile weapons, trying to equalize them with the United States.

The Caribbean Crisis marked the apogee of the armed confrontation between the USSR and the USA, the Warsaw Pact and NATO. It became clear that the hopes of any of the opposing sides to win in a global nuclear war are illusory, that it threatens to destroy the winner, following the vanquished. But the untwisted flywheels of the military-industrial complexes of both sides, the desire of Washington and Moscow to be able to exercise forceful pressure on a political enemy led to the fact that the arms race did not stop, but continued at an increasing pace. The United States annually commissioned new nuclear-powered missile-carrying submarines, Minuteman solid-propellant ICBMs, kept the first-generation Titan-2 heavy liquid-propellant missiles, and strategic bombers in combat readiness.

B-52. The Soviet Union, which back in 1959 created a new type of armed forces - the Strategic Missile Forces (RVSN), launched the first submarine missile carriers, sought to keep up with the United States. A new stage in the arms race has unfolded. Its distinguishing feature from the 50s was that although the quantitative accumulation of strategic weapons continued, now the goal was different - not to win the war with these weapons, but to intimidate the enemy with superiority in strength, make him believe that he is weaker, and thereby depriving him of the temptation to deliver the first nuclear strike on the opposing side.

Thus, nuclear missile weapons no longer became a "weapon of victory", but a means of deterring the enemy. Thus, in the 1960s, the struggle for a balance of power, the prevention of superiority in them by the opposing one, became a priority goal. A struggle for strategic parity unfolded.

3. From deterrence to deterrence

When it became clear that the Caribbean crisis could end with a compromise between the parties, the world-famous scientist, the great Briton Bertrand Russell, wrote to Khrushchev on October 28, 1962: "I want to express my sincere gratitude to you for the greatest caution that you demonstrated in the conditions of a severe crisis"58. Russell's letter reflected the general mood then prevailing in the world. Indeed, the Caribbean crisis was regarded by the world community as an extremely dangerous precedent: the emergence of even a seemingly local conflict between nuclear powers, when the situation was aggravated and threats to use the latest weapons, almost ended in a global nuclear war. He showed that a new alignment of forces was taking shape in the international arena, that this process had assumed an irreversible character, that strategic

rockets have become not military, but political weapons of a special kind. After 1962, the US and the Soviet Union stopped resorting to mutual threats to use nuclear weapons and began to avoid creating conflict situations in their relations. It became clear to the leadership of both superpowers that the situation in the world urgently required real measures to reduce the danger of a general nuclear war. Direct uninterrupted communication was established between the heads of government of the USSR and the USA in case of a crisis. The world community welcomed with satisfaction the Treaty on the Ban on Tests of Nuclear Weapons in the Atmosphere, Outer Space and Under Water, concluded in 1963 between the USA, the USSR and Britain. There were also other signs of mutual understanding between East and West, a decrease in the tension in their relations.

In those days, it seemed that the hot breath of an imminent nuclear war, which was barely avoided, would have a sobering effect on politicians and strategists, opening the way to ending the further arms race. But that did not happen. Militaristic thinking was not outdated and continued to dominate politics. It came to the fore in Southeast Asia. The United States started the Vietnam War with the so-called "Tonkin Incident" in August 1964. The war, where the US and the USSR provided assistance to the opposing sides, and the US troops directly participated in the hostilities, largely blocked the possibility of dialogue between them and us. The United States viewed the Vietnam War as a form of subversion of world communism against the countries of the West. The Soviet leadership did not show readiness to revise its political worldview either.

The Soviet leadership reacted negatively to US intervention in

the Vietnamese Civil War, fought between the pro-communist Democratic Republic of Vietnam (DRV) and the pro-American Republic of Vietnam (RV) since 1960. American participation

Russian troops on the side of the RV was a gross violation of international law. This war lasted 15 years. It ended with the victory of the communist forces in 1975 and the proclamation of the Socialist Republic of Vietnam on July 2, 1976. The US Army, Air Force, and Navy participated in this war until January 1973.

The Vietnam War went down in history as a "dirty war", it gave rise to the so-called "Vietnam syndrome" in American society, which was expressed in the growth of anti-war sentiment. This was of growing concern to the US government. Washington's desire to impose its terms of a truce on the leaders of the DRV, and later on the pro-communist Republic of South Vietnam (RSV), which was formed in the south of the country in opposition to the Saigon regime, ended in failure.

In the course of negotiations between the warring parties, an important military the political factor was the relationship between Moscow and Washington.

On the one hand, the USSR helped the DRV with weapons and military equipment, had the opportunity to test new types of weapons during the battles, and gained access to the latest models of American weapons taken by the North Vietnamese as trophies. All this strengthened the ties between the USSR and the DRV, which was especially important during the years of tense Soviet-American relations. The US intervention in Vietnam restored world public opinion against the aggressor, and the huge costs of the war weakened the US military and economic potential. In addition, the failures of the US-Saigon actions in Vietnam weakened the moral and psychological stamina of US soldiers and officers, gave rise to an active anti-war movement in the country and numerous refusals to serve in the US armed forces.

But, on the other hand, the USSR was also interested in a speedy end to the war, since the failures of the United States increasingly created the danger of their use of nuclear weapons in Vietnam. And it was fraught with world missiles

nuclear war, which none of the superpowers wanted - here their interests matched.

The US government, convinced already in the first years of the futility for its country of a further escalation of the Vietnam War, was looking for a way out of it. But it was necessary to "save face". The Vietnamese people, by all their actions, showed their readiness for an uncompromising struggle, regardless of losses, they showed an unshakable will to win, and the leadership of the DRV, the only state entity in Vietnam (except for an ally of the United States—

Saigon regime), with which it was possible to negotiate, showed no readiness for them, demanding that the United States first stop bombing targets in the territory of the DRV.

It was then that the United States turned to the USSR to act as a mediator and help the warring parties reach a reasonable compromise. Washington believed that the country, which supplies a huge amount of weapons to Vietnam, has real leverage on it51. But the White House was wrong: while supplying 75-80 percent of aid to the DRV, the Soviet Union did not have any significant political influence on the leadership of the DRV. This was due to the influence of Beijing on Hanoi, which at that time, despite the serious disagreement between the PRC and the DRV, was decisive. And therefore the USSR, whose arms supplies to Vietnam largely depended on communications,

passing through China, had no particular influence on the DRV, although it could have counted on it.
Nevertheless, the government of the USSR, realizing the threat posed by the Vietnam War, went to meet the United States. American emissaries (J. Fitzgerald, M. Mezhfield, A. Harriman) sought to persuade Moscow to persuade Hanoi to sit down at the negotiating table, and also to allow representatives of the Red Cross to see American prisoners in Vietnam. The meeting of the Chairman of the Council of Ministers of the USSR A.N. Kosygin with the US President L. Johnson in Glassboro (USA) in June 1967 was devoted to these issues.
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However, only after lengthy negotiations between Soviet representatives and US and DRV statesmen was it possible to organize preliminary US-Vietnamese meetings, which took place in May 1968, and from January 1969 official quadripartite (USA, RV, DRV, RSE) negotiations began on Vietnam. The Soviet Union played a very important role in the negotiations in Paris all the time, although it was not a participant in them. An important outcome of the negotiations was the agreement of the parties to end the war in Vietnam, signed on January 27, 1973. It was achieved largely thanks to the efforts of Moscow. The USSR and the USA, the people of Vietnam put a lot of effort into putting an end to the war in Southeast Asia and ensuring peace and stability in this region.

But peace in Vietnam was restored only in the mid-70s, when the international situation on the planet changed significantly compared to the 60s.
mi. At that time, the involvement of the United States in the Vietnam War, when, it would seem, relations between the West and the East were only just beginning to improve and there was hope for an easing of international tension, caused serious damage to the stabilization of the existence of the world community.

However, Vietnam was only one of the factors in the strengthening of militaristic thinking at that time. There were others. Relations between the USSR and the PRC sharply worsened and worsened. This was not immediately understood across the ocean. And the US intervention in the Vietnam War was supported at first by American society. It was believed that there, in Vietnam, the American guys would fight against the forces of "world communism", because they believed that the USSR and China were behind the DRV. But when it turned out that two
socialist giants oppose each other, and the United States, in essence, is at war with a small, underdeveloped country, and moreover, they suffer heavy losses -
American society opposed this war.
Official Washington considered the USSR and the PRC to be its main adversaries - after all, China was about
to
zhen was to become a nuclear power - and sought by all means to maintain and strengthen its status as the strongest nuclear power in the world. And although the Caribbean crisis showed that nuclear weapons cannot be a "weapon of victory", that only compromise, mutual concessions, understanding of each other's interests and the global interests of all mankind are an effective means of resolving conflicts in our time, the Cold War stereotypes have once again triumphed. America again rushed into the struggle to maintain and build up its nuclear superiority. The Soviet Union had no choice but to continue to seek military-strategic parity. As a result, the arms race received a new impetus. In 1963-1964, 4 missile bases were put into operation in the USA, each of which had a wing of Minuteman missiles (150-200 missiles). The missiles were dispersed in concrete shafts 30 meters deep. Preparation time

to launch was 30 seconds. Heavy ICBMs "Titan 2"60 entered service . Unlike the first-generation ICBMs, which were launched from the ground, the new missiles could take off directly from the silos. The construction of nuclear submarines with Polaris missiles was also in full swing. One nuclear-powered missile carrier was launched into the water every month. And if the Eisenhower government planned to build 45 nuclear missile carriers by 1970, now the program provided for the commissioning of 41 boats by 196461 . Even according to Pentagon experts, such a nuclear arsenal was five times higher than the ammunition that McNamara's department considered sufficient for the "guaranteed destruction" of objects planned on the territory of the USSR. McNamara himself admitted that "with the forces that we propose to support, we will even have a surplus of nuclear power beyond our needs" 62 .

The revision of the "first strike" strategy also affected plans for the use of medium-range missiles from advanced bases, primarily in Western Europe. Obsolete

The heavy missiles "Tor" and "Jupiter", deployed in open, unprotected positions, requiring lengthy preparation for launch, were withdrawn from service in 1963 and withdrawn from the European countries where they were deployed. They were supposed to be replaced by nuclear submarines with medium-range missiles "Polaris" patrolling in the coastal waters of Europe. Unlike ICBMs, which took about 30 minutes to reach targets, Polaris, launched from distances closer to the Soviet Union, could reach its territory faster and hit the intended targets. “After 1963, when the United States deliberately removed its Thor and Jupiter missiles from the continent, NATO did not deploy any intermediate-range missiles,” the New York Times wrote in 1983. “NATO relied on intercontinental missiles deployed in North America, on missile submarines in European waters, on a range of aircraft capable of bringing down nuclear weapons on the Soviet Union from Western Europe, and on French and British nuclear forces.” 63

The mention of French and British nuclear forces here is not accidental. In the early 1960s, Britain and France already had their own nuclear weapons. England, having first tested a hydrogen bomb on Christmas Island in 1957 and seeing in the "nuclear factor" the basis of the power of its armed forces, built and by 1963 had put into service 180 strategic jet bombers of the "Volcano" and "Victor" types (range, respectively 9,000 and 11,000 km), armed with nuclear bombs and Blue Steel cruise missiles to destroy ground targets (range 160 km). France, having begun independent creation of nuclear weapons in 1955, tested an atomic bomb in the Sahara in 1960 and then formed "French national strike forces" in the form of Mirage IV strategic bombers capable of carrying atomic "weapons (by 1968 - 62 bombers) .

In the future, France planned to equip its strategic aviation with missiles of its own production and build 5 nuclear submarines armed with Polaris missiles. The first boat - La Redoutable -
was launched in 1967.

To increase the scope of military preparations, the United States and its NATO allies created a psychological environment for ever new breakthroughs in the production and improvement of weapons, declaring that the Soviet Union

leading the arms race. It was a falsification, which was later recognized by leading American scientists and politicians. So, G. York in the book "Race to Oblivion" (1971) wrote:

"Once and again we have taken unilateral actions that unnecessarily hastened the arms race... I share responsibility for some of them and know the detailed details... Our unilateral decisions determine the pace and scope of most of the concrete steps in the strategic arms race. In many cases, we started development earlier than the Russians, and easily achieved large and long-term advantages in the number of weapons deployed .

A participant in American nuclear programs, the well-known American scientist J. Kistyakovsky stated: "I am convinced that the US, not the USSR, is spurring the arms race"65 .

This truth was recognized by the rulers of the United States and other countries in the 1960s. However, even their superiority in the forces and means of nuclear war did not become a deterrent in the arms race continued by the countries of the North Atlantic bloc. On the contrary, it continued with increasing force. Between 1962 and 1965, NATO nations increased their military budgets by an average of 30 percent. The leading role was played by the United States, whose military budget grew every year. If in the 1964/65 financial year, US military spending amounted to 51.9 billion dollars, then in 1967/68 they increased to 76.5, and the next year to 79.8 billion.

dollars. The military-industrial complex grew more and more. The number of Pentagon's primary contractors alone has reached almost 20 thousand corporations, and taking into account subcontractors - about 45-60 thousand. Entire industries focused solely on serving the US military. 80 percent of the products of the aircraft industry, 60 percent of shipbuilding, and 35 percent of electrical engineering went to military needs. A number of the largest firms were closely connected with military orders. So, for example, 97 percent of the products of the company "Thiokol" went to the production

rocket fuel, 57 percent United Aircraft, etc.67 .

As a result of the combined efforts of the US military-industrial complex and the Pentagon, a huge arsenal of strategic offensive weapons has been created. The United States in 1967 completed the creation of a strategic triad. It included 1054 launchers of Minuteman-1, Minuteman-2, Titan-2 ICBMs, 656 Polaris A-2 and Polaris A-3 missiles on 41 nuclear submarines, as well as 615 heavy B-52 bombers armed with the Hound Dog supersonic cruise missile and B-58 medium bombers. The total number of strategic carriers was 2325. And in the USSR at that time there were just over 600 carriers of nuclear weapons, including only 2 nuclear submarines (32 launchers)68 .

All this allowed the new US Secretary of Defense Clifford to declare in 1968: "Today we have a significant military superiority over the Soviet Union, and I will do everything in my power to maintain such superiority in the future"69. The main place in the new round of the arms race was occupied by programs for the further improvement of missile systems.

At this time, in the mid-1960s, the attention of the US leadership was attracted by new military programs - ballistic missiles with multiple warheads, equipped with individual targeting heads, and an anti-missile defense system.

Shocked at the end of the 50s by the appearance in the USSR of a nuclear missile

weapon that made the United States invulnerable, the US War Department longed for a new superweapon, one that the Soviet Union did not have. This task was intended to be solved through a technological breakthrough in order to maintain and increase the superiority in strategic weapons and break away as far as possible from the opponent. By developing multiply charged missile warheads, which the USSR did not have at that time, American strategists hoped to significantly increase the US's ability to destroy targets on the territory of the USSR, the number of which was constantly increasing in the plans of the Pentagon. Back in August 1968, the Mi-Nitman-3 intercontinental ballistic missiles and the Poseidon naval missiles were tested for the first time. The latter were intended to replace the Polaris. These types of missiles were equipped with MIRV (multiple-charged multiple reentry vehicle) warheads - each missile could hit from 3 (Minuteman 3) to 10-14 (Poseidon) different targets.

At the same time, in order to increase the inaccessibility of the US territory for a retaliatory missile strike, the second component of the "wonder weapon" was also being developed - missile defense system (ABM).
Since the 1950s, US Army research organizations have been working on the Nike-Zeus missile defense system (1959-1963). However, during the development, major shortcomings of this system were revealed. Its main drawback was that the Zeus interceptor had insufficient speed (four times less than an ICBM). It had to be launched in advance, and the interception was made high above the atmosphere. Therefore, the American missile defense system could be overcome with the help of relatively simple means of a breakthrough. The second drawback of it was that the detection, tracking and recognition radars of the system had mechanically rotating antennas. They did not allow tracking many targets at the same time and could be "overwhelmed" by a massive missile attack.

Therefore, in 1963-1965, an improved Nike-X missile system was created. Unlike Nike-Zeus, the new version of missile defense included a different type of radar in the project - with a phased array. In them, the direction of the beam was set not by mechanical rotation of the antenna, but by a change in the electromagnetic field, which made it possible to track a large number of targets simultaneously. To intercept warheads in dense layers of the atmosphere, a smaller anti-missile with an increased initial acceleration, the Sprint, was developed. The explosion of its nuclear warhead with a yield of about 10 kilotons was supposed to hit ICBMs at an altitude of 40 kilometers with a shock wave and neutron radiation. For long-range, above-the-atmospheric interception, the Spartan anti-missile was intended -

modification of "Zeus" - with a warhead yield of up to 10 megatons, which could disable an offensive enemy missile with X-ray and thermal radiation at a distance of up to 10 kilometers from the epicenter. However, the Achilles' heel of the missile defense system being created was radars, which could be disabled or "blinded" by above-atmospheric nuclear explosions70 .
Interest in missile defense and multiple reentry vehicle (MIRV) missile systems also increased because it directly concerned the multibillion-dollar orders of such major military monopolies as International Telephone and Telegraph, Western Electric, Lockheed, Martin Marietta, General Electric and Boeing. Congress for the most part supported the programs of the armed forces, and primarily Nike-X, since a very narrow circle of people was still aware of the development of repeating warheads. Many Capitol figures actively campaigned for appropriations

for the purchase of missile defense. They saw Nike-X as essential to maintaining US "nuclear superiority" and because the Pentagon believed it could shield cities in the event of a nuclear war and greatly reduce damage to the United States.

This question was put on a practical basis in the mid-1960s. The military department was provided with projects of various options for the country's anti-missile defense systems. They also included:

"fine" protection of populated centers ("protection of an area or territory") from an accidental or small missile attack, consisting of 2,000 anti-missiles with a total design cost of up to 10 billion dollars;

"dense" protection of the territory from a massive missile attack from 4,000 anti-missiles with a total cost of $20 billion;

"object protection" ("point protection"), that is, covering the starting ICBM complexes, much less complex and expensive71 .

At the end of the 60s, when work began on the creation of missiles with multiple reentry vehicles "Minuteman-3" and "Poseidon", the construction of the Sentinel anti-missile defense system began (as Nike-X began to be called from November 1967) . The new missile defense system, consisting of 12 complexes, was supposed to have 600-1000 anti-missiles72. These were attempts to begin the creation of a missile defense of the US territory. However, in early 1969, the deployment of the Sentinel system was suspended. The name of the system was changed to "Safeguard", and instead of deploying a missile defense system to cover the territory, it was planned in the first phase of the program to build an anti-missile defense to protect part of the US missile forces from a Soviet nuclear attack on American ICBM launch complexes.

"Safeguard" was no longer intended to protect populated areas from a potential enemy retaliatory strike, but to reduce the vulnerability of Minuteman missiles, that is, to increase the capabilities of the American nuclear missile "retaliation strike." For this, the missile defense systems were supposed to be moved from positions around American cities to the starting positions of the Minuteman intercontinental missiles. In the first phase, it was planned to deploy 2 missile defense systems (out of 12,

scheduled for construction) to cover the ICBM bases (Montana) and Grand Forks (North Dakota). The second phase of the program provided for the expansion of missile defense to other ICBM bases, and later on to US cities. Thus, the emphasis was not on protecting the civilian population, as previously declared, but on increasing the invulnerability of missile bases - offensive weapons. But the paradox was that the main technical components of the Safeguard system remained the same as those of the Sentinel system, although the requirements for missile defense of protected small objects, which were ICBM silos, were completely different73 .

Thus, despite the harsh lessons of the beginning of the decade (the Caribbean crisis), despite the fact that many in the United States realized that it was not the USSR but the United States that was spurring the arms race, despite the emerging opportunities for easing international tension (Treaty on the Ban on Nuclear Weapons Tests in the Atmospheric , Space and under water in 1963, the Treaty on the Non-Proliferation of Nuclear Weapons in 1968, etc.), the United States chose to prolong the insane arms race, hoping to maintain military superiority with new types of superweapons.

Under these conditions, faced with the fact of a rapid build-up of US military power, the Soviet Union was forced to strengthen its

defense capability to eliminate the American strategic advantage. It was a necessary response to the growing threat from across the ocean. The regularity and fairness of this answer was recognized by many authoritative American scientists and politicians. “No one expected,” wrote Princeton University professor Stephen Cohen, “that the Soviet Union would forever put up with its military lag, which was observed in the 60s; the inevitable elimination of this lag has always been the main prerequisite and necessary need for detente.” Cyrus Vance, former U.S. Secretary of State, noted: "It was inevitable that the Soviet Union would build capacity, for example

but equal to our potential." Robert McNamara's memoirs of the military-strategic situation of the 60s are a very remarkable revelation: "If I were the Soviet Minister of Defense, I would be damned concerned about the inequality of forces. And I would be concerned that the United States is trying to build a first-strike capability." In doing so, he refers to a 1962 US Air Force Command report. The document said: "The Air Force supports such a build-up of forces that will provide the United States with the ability to launch a first strike." "If the Air Force thought that," McNamara stressed, "what did the Soviets think? What kind of reaction would you expect? They reacted as follows: they significantly expanded their program of strategic nuclear

armaments... So, you got the phenomenon: action - reaction"74 .

Indeed, the entire history of the post-war arms race testifies to the fact that the United States was in the lead in it in the first post-war years. This is clearly evidenced by the statement of veteran American diplomacy J. Kennan:

“Let's not cast a shadow on a clear day, shifting all responsibility on our opponents. We must remember that it was we Americans who, at every turn of the road, were the initiators of the further development of such (nuclear. - *A. O.) weapons. We were the first to create and test such a device, we increased the degree of its destructiveness by creating a hydrogen bomb, we were the first to create a repeating warhead, we rejected any proposals to refuse to be the first to use nuclear weapons in principle, and we alone - God forgive us - used* this *weapon*

against other people, against tens of thousands of defenseless civilians”75 .

Until the 1970s, the USSR was constantly in a "race for the leader." During the entire post-war period, the Soviet country came up with specific proposals for the reduction of armaments, but, being forced to take retaliatory measures,

as a rule, found adequate solutions to the American challenge. It was not easy, but it was dictated by severe necessity. As a result, parity was achieved in the ratio of US and Soviet strategic arms in the early 1970s. This was also recognized in the West. In September 1970, the London-based International Institute for Strategic Studies announced that the USSR was approaching nuclear parity with the United States. On February 25, 1971, Americans heard on the radio President R. Nixon's address: "Today neither the United States nor the Soviet Union has a clear nuclear advantage"76 .

In October of the same year, in preparation for the Soviet-American summit level, he said at a press conference:

“If there is a new world war, if there is a war between superpowers, then no one will win. I think we can also recognize that no major power can gain a decisive advantage over

the other... It is for this reason that the moment has now come to settle our differences, to settle them taking into account our differences of opinion, recognizing that they are still very deep, recognizing, however, that at the moment there is no alternative to negotiations .

Already in Moscow in May 1972, Nixon stressed that "in the nuclear age ... there is no such thing as security through the predominance of force"[78]

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CONCLUSION

The recognition of the real dangers in the nuclear age led the leaders of the superpowers in the early 1970s to revise their policies, to turn from the Cold War to detente, and to cooperate with states with different social systems. The successes of the peace-loving policy were won in the bitter struggle waged by all the progressive forces of mankind since the end of World War II.

Military-strategic parity between the US and the USSR has become enough reliable guarantee of peace.

The strategic balance in the conditions of the high level of nuclear potentials of both sides created a guaranteed opportunity for any of them, if it became a victim of nuclear aggression, to save enough funds to deliver a retaliatory strike capable of destroying the aggressor. This situation meant that if an aggressor unleashed a nuclear war, there could be no winner in it, and nuclear aggression was tantamount to suicide. At the same time, strategic equality created certain objective incentives for ending the arms race and reducing and eliminating nuclear weapons. It opened the possibility, in the presence of good will on both sides, to gradually lower the level

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nuclear confrontation with the constant preservation of equality - with strict observance of the principle of equality and equal security. Finally, strategic equality was an important prerequisite for the stability of the international situation and the weakening of political confrontation.

Thus, the equality of the strategic forces of the parties became, as it seemed, a guarantee of peace. Outwardly, everything looked as if the USSR and the USA had equalized their forces in the field of aerospace attack and missile defense. But quantitative equality did not yet mean equilibrium. There was no equality of opportunity. The United States and its allies had unilateral advantages in military, economic and technological potential over the USSR and the Warsaw Pact countries.

The fact is that the Soviet Union was increasingly losing dynamism in the economy. "For almost four five-year plans," it was noted at the February (1988) plenum of the Central Committee of the CPSU, "we did not have an increase in the absolute growth of the national income" 1 . The possibility of purchasing advanced technologies in Western countries for the production of products that meet international quality standards (except for the military-industrial complex) was not realized. But all this affected later, in the 80s, and then, in the early 70s, the military-strategic parity achieved was a great achievement for the Soviet Union. This immediately affected the military-political situation in the world.
It was during these years that the relations of the countries of the socialist community with the major states of Western Europe—England, France, the FRG, Italy, and other capitalist states—were strengthened and further developed. In August 1970, a Soviet-West German treaty was concluded , according to which the parties assumed obligations to respect the territorial integrity of all states in Europe, to resolve their disputes by peaceful means,

refrain from the threat and use of force. Was admitted to the UN by the GDR. Its agreement with the FRG (1971) confirmed the inviolability of the western borders of the GDR. Poland and Czechoslovakia signed agreements with the FRG (Poland in 1970, Czechoslovakia in 1973). In September 1971, a quadripartite (USSR, USA, England and France) agreement on West Berlin was signed. Negotiations began on the limitation of strategic arms, on the limitation of nuclear arms in Europe, on the mutual reduction of armed forces and armaments in Central Europe.

As a result of negotiations between the USSR and the USA on the limitation of strategic arms (SALT), which began in November 1969, in Moscow in May 1972, two important agreements were signed between the USSR and the USA: the Treaty on the Limitation of Anti-Missile Defense Systems (ABM) and the Interim Agreement between the USSR and the USA on certain measures in the field of limiting strategic offensive arms (in the world press, this agreement was abbreviated as SALT-1).

Under the Treaty on the Limitation of ABM Systems, which is of an indefinite nature, the Soviet Union and the United States assumed a number of obligations based on the objective relationship between defensive and offensive strategic weapons.

In signing the Treaty, both sides noted that "effective measures to limit missile defense systems would be a significant factor in curbing the strategic offensive arms race and would lead to a reduction in the danger of a war with the use of nuclear weapons."

A missile defense system, as defined by the Treaty, is a system for combating strategic ballistic missiles or their elements on flight trajectories, currently consisting of interceptor missiles, interceptor missile launchers and missile defense radars (ABM radars).

The listed components of the missile defense system include those in combat condition, under construction, testing, overhaul or maintenance or re-equipment, in conservation.

Article I fixes the obligation of the parties "not to deploy missile defense systems territory of one's own country and not to create a basis for such defence".

Each side was allowed (Article III) to deploy missile defense systems in only two areas:

a) within the same area with a radius of 150 kilometers from the center, located in the capital of this party;

b) within one area with a radius of 150 kilometers, in which silo launchers of intercontinental ballistic missiles (ICBMs) are located.

In each area, a limited number of components of missile defense systems (anti-missiles, anti-missile launchers and missile defense radars) are provided. Each side is allowed to have no more than 100 interceptor missiles in one area. In 1974, the USSR and the USA signed a protocol to the Treaty, according to which the number of areas for deploying missile defense systems of each side was reduced to one.

According to Article V, the parties undertake "not to create, test or deploy sea, air, space or mobile ground-based missile defense systems or components."

The USSR and the USA undertook not to transfer to other states and not to place outside their national territory missile defense systems or their components limited by the Treaty (Article IX). The fulfillment of contractual obligations must be controlled by national technical means, in compliance with the generally recognized norms of international law.

It is also important to note that Article XI contains the obligation of the USSR and the United States "to continue active negotiations on the limitation of strategic arms, and Article XIII provides that the parties must "consider, as necessary, possible proposals

to further enhance the viability of this Treaty..." The indefinite Soviet-American Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM), signed on May 26, 1972, entered into force on October 3 of the same year.

Another agreement (SALT-1), concluded for a period of 5 years, imposed certain quantitative and qualitative restrictions on stationary launchers of intercontinental ballistic missiles (ICBMs), launchers of ballistic missiles on submarines (SLBMs) and submarines themselves with ballistic missiles.

However, the widespread recognition on an international scale of the principle of peaceful coexistence of states with different social systems caused increasing opposition from certain forces in the United States. Strategic parity with the Soviet Union did not suit some US political and military circles. “Americans,” wrote noted journalist J. Chace, “have always been in search of invulnerability. American leaders, either through doctrine ... or through military systems, or simply relying on geography, have tirelessly made efforts to achieve this level of security , which would be absolute"2 .

When military-strategic parity became a fact, Washington unconditionally regarded it as exemplary equality in terms of quantitative parameters. But what was the approximate equality in terms of the number of means of delivering nuclear weapons to strike targets, as well as in terms of ground forces in

Europe? If the ATS countries had superiority in tanks, then the NATO countries had an advantage in anti-tank weapons and aviation. Both sides could inflict "unacceptable damage" on each other in the event of a nuclear war. There has come "equality of fear" on the basis of mutually assured destruction. But this equality did not mean equality of opportunity. And this will have an impact in the future. However, then, in the early 70s, this was a significant achievement of the Soviet Union. He became

a full-fledged superpower, and nuclear missile weapons have turned from a "weapon of victory" in a war of nuclear powers into a political weapon of a special kind - a deterrent to a global nuclear catastrophe.

It was a world-historic victory for Soviet weapons, Soviet military-technical thought, and Soviet politics in the 20th century. If the Soviet Union played a decisive role in the defeat of fascism in World War II, then, having achieved military-strategic parity with the United States, it made a decisive contribution to creating an environment of equal security for the parties in the current bipolar world. A process of dialogue has begun between the superpowers and their allies on arms control, their limitation and, in the future, their reduction.

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Content

Orlov A. S. O

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The Cold War between the USSR and the USA still hides many secrets and mysteries. The well-known historian A. S. Orlov in his new book opens this mysterious veil, referring to the most intriguing aspects of the confrontation between the great superpowers: the nuclear arms race, espionage, participation in local conflicts, the Caribbean crisis, etc. The book is addressed to the general reader.

Alexander Semenovich ORLOV

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CENTURIES

Why did the appearance of the atomic bomb in the USSR turn out to be completely unexpected for the US ruling circles? How were atomic weapons created in the USSR? What played a major role in this process: science or intelligence? Why did the United States, which had atomic bombs and strategic bombers, not dare to strike at the USSR, although plans for an "air-atomic blitzkrieg" were developed? How did Soviet anti-aircraft gunners get into the war in Korea? Has US intelligence figured out Khrushchev's missile secrets? What gave rise to the Caribbean crisis, which brought the world to the brink of a nuclear catastrophe? The answers to these and other questions are the content of the book offered to the reader.